# meetings minutes archive

## **Meeting Reports**

### Meeting of the 01/30/2020

#### General information:

TransportPCE will propose for Sodium SR2 some updates on OpenROADM Service model 5.1, as well as bug fix on PCE to make it more deterministic, and a SONAR vulnerability fix. We still have issues to merge all the changes by ourselves since the branch has been locked (it shouldn't be for self-managed projects). Although, we managed to stage the release thanks to supercommitter's help. We now wait for managed project to publish their artifacts on Nexus. Jenkins-releng Tox job were also updated to python 3.6 last week, what broke the docs jobs. Fix pending.

#### Code review

"Upgrade portmapping yang models" is an update of the yang models to handle otn-switching pools. Associated lcp has been changed to connection-map lcp. Network model has also been updated. Last part of portmapping and topology consolidation is Portmapping-topologies code consolidation. AT&T will push an update of the renderer code next week. Service path 1.7 model has been pushed on Gerrit. It includes modification to better handle otn-use cases. The new yang models also include the otn-service-path introduced by AT&T and used between the service Handler and the Renderer. We agreed that the best way to push new Renderer code was probably to rebase it on this change to include new yang models. Narayan is working on the update of the inventory (handling R2.2.1). He could probably push it on master branch by mid-February. Guillaume has started preparing the work for the introduction of TransportPCE in Magnesium.

## Meeting of the 01/16/2020

#### Code review:

Cleanup and optimize pom: The POM have been rationalized (to remove unneeded dependencies) and the patch has been merged last Friday. OLM Junit test have some issues really depending on the environment which makes it difficult to reproduce. This was coming from a version mistmatch between Mockito and PowerMocK. Normally versions shall be defined through odl.parent, but in some cases this version may be forced........

Vulnerability identified by SONAR: in some methods used mainly by GNPY, an external xml file may be specified as a DTD or WSDL to be retrieved on a malicious URL. This may lead to some security issues. Forcing some parameters allows to solve the vulnerability.

Ahmed made in the PCE some changes to take into account the comments on the PCE from Jonas. He has also tried (successfully) to minimize the difference between the OSNR evaluated by tpce and the one calculated by GNPY. We have now a very limited difference (0.07dB).

Topology and portmapping consolidation. OTN topology is calculated in the same way as for openroadm-topology. This means the portmapping has been changed (including notably odn-switching -pool). For the topology, for each xponder node we have the associated switching pool. When a xponder does not have a list of xponder, a xponder is created in openroadm-topology, and the port are associated through the connection map. When a list of xponder is present the type of node is used to define the way the node shall be handled. For muxponder and switch the nodes appear in both the otn and the openroadm-topology. Supporting tp have been added.

Shweta has started debugging the PCE. The topology and port mapping consolidation shall be available by the end of today on Gerrit to allow for further debugging and investigation.

AT&T proposed a naming convention for the SAPI/DAPI. Need to verify with the different manufacturers if they all support 64 bytes format, or if some of them support only the 16 Bytes format. Proposed convention can be supported with the most restricting format (16 bytes).

### Meeting of the 01/09/2020

### General information:

TransportPCE will be in Neon SR3 Release. The common distribution will be distributed soon. Next Deadline is Sodium SR2 (6th of February is the final deadline for self-managed projects)

### Code review:

Several patches were merged to clean-up build-warnings. When building transportPCE, now we should only see warnings associated with make check function (Checked future has been deprecated), and some others coming from a bug in Yang Tools... The gate was broken before holidays. A python version was removed ...... Had to install Maven which has been removed from an Apache file....... Powermock is no more supported in Neon SR3

Christophe and Gilles made a cleanup of the POM to avoid redundancy and refactored the dependencies in the different POM files at the different levels. They also simplified the features associated with the project. A vulnerability has been identified by SONAR. Guillaume started to work on it. It is associated with the code for GNPY interconnections. AT&T has started debugging PCE code.

#### **General information:**

Ongoing talks on Neon SR3 status. A vote has been opened and it seems that Neon will be released today. It seems very difficult to test everything in this period, especially since many things are broken. Nexus was unavailable this morning, our gate is broken: we are unable to launch the functional tests because they changed the jenkins releng profiles.

#### Code review:

OTN code for topology building and portmapping has been merged. OpenROADM deprecated objects Change has been merged. Guillaume made a general cleanup to remove almost all the remaining warning (1 or 2 left). The renderer and PCE code have been rebased on the current master state.

Ahmed made some changes to improve OSNR calculation and make it operational. This changes addresses 3 bugs raised by Jonas. Jonas also asked to handle in this change the power setting according to the fiber type in the OLM so that OLM operation is in line with the assumptions used for OSNR estimation.

Christophe and Gilles managed to rebase the Renderer code from AT&T, as well as the PCE code. Next step will be to debug the code and upgrade all the APIs so that all the modules interoperate. We will also need to move to Java 11, which shall be quite straight forward except for Honey Node.

## Meeting of the 12/12/2019

#### **General information:**

We do not have any news about Neon SR3 release, for the migration of SonarQube to sonarCloud.io provider. JOCN paper has been reviewed and comments provided

Code review: The OpenROADM initiative OTN: Configurations files for switchponders have been completed with interfaces so that we can use them in any case to create any kind of interface (that ma The functional test related to the OTN topology have been merged. Honeynode has been adapted (XSL transform has been improved) to handle correctly configurations with interfaces.

Tox file have been updated so that OTN functional tests are not triggered automatically but can be launched manually. T-API Multi-layer and 100GE transponder topology creation: For multi-layer TAPI topology, we handle otsi and ODU-DSR layers. For the first information is derived from openROADM topology. For the last information is derived from otn-topology layer. Right now only node are managed. Link will need to be managed but implies that OTN link are correctly populated in the openROADM otn-topology first.

GNPY code has been merged. Ahmed is currently working on the consolidation of the PCE to address Jonas comments. GNPY will be used in the regular path calculation if we identify too low margin according to target OSNR.

Streamwrite generator...... Deprecate function using merge from MDSAL....... Supress warning from ...... To avoid

The change Initial code for OTN Topology and portmapping has been reviewed and modified and is almost ready to be merged. Modifications allow to be compliant with the last changes. Some tests in the predicate regarding the direction of the port, presence of partner port... were also added.

The change for the renderer has also been reviewed. The blueprint has been modified to start the bundle. Render bundle is running and Jenkins is providing a +1 vote.

Fix deprecated openroadm interfaces: it seems we could merge that code before merging remaining OTN code.

## Meeting of the 12/05/2019

### General information :

UTD has proposed a first version of the paper for OFC. Bala made some comments to be addressed (mainly formatting and typos).

Highstreet will try to organize before Christmas a meeting gathering AT&T, DT, Orange, Telia, and TIM to discuss potential common goals in getting towards a transport SDN controller integrated in ONAP SDN-C leveraging transportPCE code and the development performed by Highstreet on FCAPS.

For OFC demo, we are confident with the availability of OTN Code: some additional modifications on the portMapping and topology to stick to the approach used for the WDM layer can be made in a limited time. The PCE needs to be debugged. After the Renderer is pushed and tested, the service Handler needs to be adpated to handle OTN demands. All of this shall be ready for Magnesium, and the OFC demo.

During Super Computing, UTD experienced some issues with loss of notifications associated with multiple equipment connections and disconnections. This Phenomena is random and AT&T will try to reproduce it in the labs. With one of the equipment they also experience some nested locking issues.

### Code review:

GNPy patch has been corrected to support the end to end test.

TAPI: The abstraction of OTN topology in TAPI is almost finished. Only the OTN link are not handled. We will work on reducing the number of commit to make it more readable. 2 layers are used (EDR/ODU and photonic layer). This respects TPAI 2.1.2.

OTN portmapping and Topology: the consolidation of OTN portmapping and topology led to a failure with one functional test (1.2.1). It has been corrected. The modifications have been squashed with Shweta's commit to make it more readable. The changes shall be merged soon has it passes every functional tests.

Functional test for OTN Topology: a new functional test suite has been prepared to check the behavior of the topology building.

PCE: Adressing Jonas comments, we shouldn't need 100 path when we calculate the k shortest paths. This will be corrected in a short time.

Renderer will be pushed by AT&T tomorrow or Monday at the latest.

### Meeting of the 11/21/2019

### General information :

TransportPCE is in Sodium SR1, self-service release documentation is obsolete and was reviewed by Guillaume. The community is preparing Neon SR3. The proposal is to push minimum bug fixing keeping old version of the DataBroker in Neon SR3 and keep the new DataBroker in Sodium.

#### Code review:

PCE bug fix to use a deterministic approach merged.

The jenkins gate is repaired. It was broken this week for 2 reasons: - The Sodium SR1 artifact snapshots have been removed from Nexus, dependencies have been upgraded to use SR2 snapshots. - Python version in tox has been upgraded from 2.7 to 3.5.

Pending Changes Switch inventory to Mariadb: the change has been rebased and poms have been updated. Guillaume proposes to include the code so that it will be included in the Mg Release. Magnesium release code freeze is planned on February. The code might not be activated at the beginning. Mariadb connector is officially part of the ODL distribution. We may consider getting rid of the mysql distribution and update JIRA 82 ticket.

Christophe and Gilles have been reviewing the code for OTN topology and portmapping. They hardened part of the code to avoid raising exceptions (PortMapping and OpenRoadmOtnTopology22 and make some modifications on PortQual. They have also made some changes to support Nodes where we don't use a list of Xponders so that it passes 1.2.1 functional tests. AT&T confirmed that rate in portmapping shall be derived from supported-interface-capability and that for client port on xponders it will be a list - so it will need to be adjusted in the portMapping).

The Honeynode and xponders xml configuration have been updated so that interfaces are now supported on the configurations handled by HoneyNode

#### Other topics:

Nokia asked more details on how they can contribute to TransportPCE. A first contribution from Nokia was proposed in August but it is not mergeable in the current state. The first step is to clarify the license used by YANG models and to realign their contribution with the code current state (rebase with the master branch). Openconfig models do not embed the license -> the license has to be declared in a separate file. Thus they can not be shipped in the same folder than the ietf models consumed since they use a different license. In a second step, the renderer function can be completed since today only the skeleton is present.

### Meeting of the 11/14/2019

### General information:

We have integrated Na SR1. This release focuses on bug fixes and code refactoring and also includes Lighty.io.

### Code review:

Shweta will analyze the enhancement request 147 raised by Jonas Mårtensson and check whether it is relevant or not. If relevant, Ahmed will investigate on the way to optimize the PCE code. AT&T has started using HoneyNode with its own config but experiences some issues when equipment configuration includes interfaces.

### Other topcis:

OLE made a demonstration of the GUI they have developed for transportPCE. It has been developed using D3 and Angular.

### Meeting of the 11/08/2019

### General information :

Sodium SR1 has been officially released for managed project. We are invited to release as self-managed project. This release of transportPCE will focus on Lighty.io support, bug fixing and code refactoring LFN announced that they plan to move the ODL Sonarqube to sonarcloud.io project.

### Code review:

Most of the changes about the service Handler upgrade to service model 5.1 have been merged. Gilles has also change the functional tests for 1.2.1 devices (change 85641) to adapt them to this evolution. This is associated with the nodelD that requires a String of at least 7 charcaters instead of 5.

This raised a new bug associated with the way Nodes are stored in List in Java. A new change 85641 has been made to make the PCE behavior more deterministic. List are sorted so that Nodes are stored in a more predictable way.

Narayan switched the inventory from mySql to MariaDb in a new change on top of the "Inventory Init" change cherry-picked from the testing branch.. As this change was still based on Neon SR3, it was using the old DataBroker controller API. Guillaume upgraded it to the new Databroker mdsal API. The project builds and passes tests, but it misses the 2.2.1 release support. Guillaume also updated the inventory docker file to switch from MySQL to MariaDb version 10.3. This is mergeable as it is but has not been tested. Narayan will test this to verify that it works properly.

Gilles is working on the change regarding the openROADM deprecated warnings

### Meeting of the 10/31/2019

#### Code review:

OpenROADM service 5.1 introduced a change in convention name that made E2E functional tests for 1.2.1 devices fail. Gilles is currently working to fix those tests.

Inventory migrated to MariaDB by Narayan. It currently works with 1.2.1 deviuces but 2.2.1 support has been disabled. Ongoing work to fix that. Docker files to create the MySQL inventory cherry-picked to master. The inventory has to be rebased but to make it work, the databroker API must be migrated.

Draft proposed by Olivier for OTN PCE as a first step.

Ahmed is working on GNPy support to propose an alternate path to the PCE. The first version of June was only evaluating the path feasability.

#### Other topics:

Tabs and trailing whitespaces in OpenROADM models => they are cleaned in the transportPCE repo but not in the OpenROADM github repo.

The next version of OpenROADM will try to include the pyang command to reformat models and get rid of them. It would make sense if this can be automated in the GitHub CI/CD or pipeline. Everybody agrees it would bring more value to ORDM <a href="https://softwareengineering.stackexchange.com/questions/121555/why-is-trailing-whitespace-a-big-deal">https://softwareengineering.stackexchange.com/questions/121555/why-is-trailing-whitespace-a-big-deal</a> But the MSA general opinion is that the revision date should be changed if trailing blanks are removed in previous versions. Not sure this opinion is shared outside.

### Meeting of the 10/24/2019

#### General information:

Highstreet technologies has been contacted and they confirmed they are working on tpce. They have proposed in a mail to provide in 2020 contributions on monitoring and alarm management to help building service assurance.

#### Code review

AT&T is currently working on consolidating the code that has been provided to UTD for SuperComputing demonstration. AT&T confimed that for OTN, tributary slots selection according to the used trib-port may vary from one manufacturer to another.

Changes made by Guillaume about OpenROADM deprecations were not discussed. they will be presented during next meeting.

Ahmed is developing functional tests corresponding to last GNPY implementation. He has pushed code that complements the impairment aware path calculation using GNPY. When a path sent for validation to GNPY is invalidated by this last, the PCE now steps back and resends a request to GNPY only including the initial constraints of the service-creation request. This relaxes the constraints and allows GNPY to calculate a new path that does exactly follow the initial path calculated by tpce PCE. If a valid path is found, it is returned to the PCE which then translates the path to a description that complies with tpce service-path models.

Orange presented the change 85363 "Draft code for PCE update to OTN layer". It shall be noted that rpc path-computation-request shall now clearly states the service-rate and the service-format for the path calculation to succeed. Additionally, the topology shall include for all nodes the supporting nodes (at network and CLLI layers). If these conditions are not respected, the Path computation will fail. This is the reason why Jenkins-releng trig a -1 vote: the functional test currently fail because these conditions are not respected. In patch 2 we corrected the input of the RPC, but not the topology. However we checked that the patch does not introduce regressions. The PCE finds a path for 100GE services if these conditions are respected. For the OTN, path calculation, it is also important note that the node information provided in the rpc shall correspond to an otn-topology node. The OTN functionality still needs to be tested.

AT&T will try to push code for Renderer, topology management and PortMapping next week. This shall allow developing missing features in the Service Handler.

## Meeting of the 10/17/2019

## Code review:

The change 84893 that introduces the PowerMock library in Junit tests has been merged.

The change to migrate from OpenROADM service model 1.2 to 5.1 has been split to ease the migration. The simultaneous use of both tpce service-path 1.5 and 1.6 was leading to some issues. The first changes remove the use of tpce service-path 1.5 completely supersed by 1.6. Some Junit tests have been removed since they were still using SP 1.5. Another change is dedicated to the migration of models. It updates transportpce-common-service-path-types YANG model from 1.6 to 1.6.1 to import the new OpenROADM service-model 5.1. The other tpce service path models have been modified to unforce the revision of OpenROADM models. This change cannot build without the last change that migrates the Java code.

Some correction have also been proposed on GNPy test tox profile and OpenRoadmTopology22.

Inventory: Narayan Inventory version is working fine with Maria DB. The current version of the inventory is not with Sodium. MYSQL connector has been removed from ODL distribution. A inventory DockerFile was created by Malick for the DB installation in change 83342. It could probably be reused for MariaDB.

On Orange side, we continue working on T-API and on modifications on PCE to handle OTN. Code for OTN handling in PCE is not s still in construction so that it cannot be pushed as it is on gerrit

### Meeting of the 10/10/2019

### General information :

We had problem with the gate. The tox jenkins job "docs-linkcheck" used by the LFN failed because the requirement.txt file could not be found. This problem has been fixed and the test shall work fine again. Now the results of fnctional tests are in the console log and we don't need to wait until all the test have been executed to see their status.

#### Code review:

Contribution from Pantheon: we can now build transportpce with Mg lighty-core The test have been updated to run also with Lighty.io with a variable environment. Today both Lighty and Karaf are supported. Lighty allows to build transportpce without OSGi. This can be used to build a TransportPCE microservice instance.

Guillaume will try to put in place a set of slides to explain the interest of using lighty.io, the current trends and discussions about Karaf, Odl make simple, and Lighty, and the interest of using lighty in moving towards uservice approach.

Service Handler: Change 85011 This change has been made to migrate the Service Handler to the last release of the service model, so that when we will includes

T-API : several changes have been made to handle abstracted topology export toward an orchestrator. The T-API models have been included. The three first changes 84916, 84917, and 84918 are derived from what was made for the Sendate Demo Use case. These needed to be upgraded according to the change that were made in Tpce in the meanwhile. The last change 84919 corresponds to the Ethernet layer TAPI topology creation. We have a high level of abstraction : one OpenROADM domain is presented as one node with all the access-points.

### Meeting of the 09/26/2019

#### General information:

AT&T tested the OTN code on real equipment. They were able to make it working with GE service creation. But there are still some issues to be fixed (xponder subtree missing from some equipment).

AT&T confirms that the list of xponders shall be present in the device model as soon as there are Xponders in the node. The list of ports of the device models in its description suggests that only network port shall be there. However in current equipment manufacturer implementation, we have both network and client ports. This is the expected behavior. Shweta will raise an issue to modify the description in the device model.

AT&T observed that since ODL has migrated to Neon, the connection to devices leads to a lot of errors. ODL (NETCONF) is probably checking something now that was not checked before. For some equipment it is even impossible to connect and establish a session with the equipment. ODL Netconf Debug tool also does not work anymore.

Orange suggests to use the netconf\_TCP\_SSH\_hijackingproxy.pl that was develop previously to investigate about this problem, and benefit from the error logs it generates. This tool can be found at: https://git.opendaylight.org/gerrit/gitweb?p=transportpce.git;a=tree;f=debug\_tools; h=4abe88f847399db5526a84ce1574b8de879840a7:hb=5b93dd84b141e6afbd5899d6b7cdf6cc2afba82f

A test plan has been issued by Orange for Renderer. This test plan was briefly introduced, reviewing the tests we are planning to implement. This gives a view on the Renderer expected functionalities.

### Sodium release and project organization :

Guillaume has solved the issue with the credential working with Luis Gomez so that now all committers shall be able to promote the artifact for next ODL release. He managed remotely the integration of transportPCE.

### Code review:

Christophe and Gilles have reworked the OLM unitary test associated with the method to calculate span loss.

"Update Pom dependencies" change, allows relying on existing artifacts (Sodium SR1), now that Sodium SR0 has been released.

OLE in "Add PowerMock library in OLM module" change added dependecies to OLM module, fixed issues related to these changes in OLM, and added the PowerMgmtPowerMockTest class to increase test coverage.

### Meeting of the 09/19/2019

### Code review:

OLE pushed some code for Junit tests using powerMock. This will allow implementing Junit test on static methods within final classes.

Code pushes associated with lighty.io were not adressed in the absence of Guillaume.

"OTN initial code Change" was addressed during the meeting. The functional review is almost done. The best location for methods used to create interfaces for 2.2.1 devices was discussed. For new interfaces (1GE/10GE/ODU2/ODU2e/ODU0), they were added in OpenRoadmOtnInterfaces, whereas they should probably be hosted in OpenRoadmInterfaces221 for consistency. Changing this will lead to a very big OpenRoadmInterfaces221 class.

The way to handle trib-slot and trib-ports for ODU2e/ODU2 was also discussed. It shall be handled in the same way as for ODU0. Otn-service-path will be kept as it is, but trib-slot shall be understood as being the first reference trib-slot of the 8 used for ODU2/ODU2e.

Last was mentioned the fact that test/checks performed in the methods of OtnDeviceOperationImpl shall probably be performed by the PCE rather than the renderer to avoid cranckback if the path provided is not valid (compatibility associated with bandwidth sharing and portgroup restrictions could be checked directly from the topology information)

It was decided that Orange shall focus on test plans and functional tests for OTN Renderer in a first step. Indeed OTN renderer code will be subject to many changes.

AT&T will provide draft code for topology so that we can review it from a functionnal view.

### Meeting of the 09/06/2019

#### General information:

Kernel projects have released Neon SR2 and we managed to stage transportPCE on top of them, so transportPCE will be part of Neon SR2. Guillaume will make a demo at ONS Antwerp wiht Pantheon at the LFN booth. Details have been sent by the LFN staff. The ODL DDF will be just after ONS. Subject can be proposed on Confluence. Since others DDFs are colocated, they can be cross-community. We invited Nokia to join our meetings but did not get any answers (yet) to discuss on the way to proceed with OpenConfig push.

### Sodium release and project organization :

A branch has been created for Sodium Release. Sodium will probably be postponed of 1 week. For Sodium, we decided to only announce code refactoring, and hardened support for OpenROADM release 2.2.1.

AT&T would like the OTN code to be integrated as soon as possible and is surprised about the impossibility to add this code for the Sodium release. Code to be included in a ODL release needs to be tested and fully operational (Junit tests + Functional tests), which takes time. Orange decided not to push additional features in Sodium for 2 main reasons: - The inventory cannot be included to Sodium as it is. - GNPY interconnection is ready, but some work needs to be done to add value (no cranckback when GNPY invalidate the path) Orange Product Owner priorities are: - to focus on integrating the OTN code pushed by AT&T on the master branch (magnesium next release) - work on features needed to implement the CCVPN Use case (maintaining the code associated with Sodium shall this way lead to a limited workload)

We need to improve the way we work to be more efficient. As per today, Orange PO determines most of the content in the (JIRA) sprints backlog, considering what has been pushed on Gerrit and what can be done on Orange side with the available workforce. Code on Gerrit includes large quantity of code pushed by AT&T from its sandbox, when AT&T is confident on the quality of the code. This means that sprints managed by Orange are designed with a limited visibility on what is developed in AT&T local repository. One possibility could be to include all players in the sprint planning to define the items that can be handled according to all available resources. Current sprint run over 4 weeks (items defined correspond to a short term roadmap). Long term roadmap (EPICS) are currently defined by Orange PO considering the expectations of other players and discussed on a yearly basis. This process could also be changed to make it on a more regular basis (periodicity to be defined) and make it more interactive. This needs to be discussed, and if we go for global sprint planning, we also need to define of who will act as a the transversal/global PO.

#### Code review:

- some difficulty to stage the Neon release because PCE jgrapht dependency version was not included in nexus. Upgrading to 2.0.0 solved the problem. - "Update Fixed to Flex mapping" pushed by Bala has been merged (Neon and Sodium branches) - OLE has continued developing Junits test to increase the coverage on the OLM - OTN code pushed by Dhruv was based on Neon SR2, just before Sodium bump

This OTN code has been tested on real devices. This took time as the equipment are still not stable (Some devices do not accept circuit-id, some others do not accept other parameters...). AT&T checked that PortMapping is getting created properly and Interfaces are created properly.

The network code (OTN-topology) has not been pushed, because it is based on an older version the code and it needs to be rebased.

## Meeting of the 08/29/2019

### General information :

The netconf/restconf bug about the deviations has been fixed for Neon SR2. The respin of the integration job has been done. Although, Neon SR2 Integration kernel project is late. When staging Neon SR2, we see that some upstream projects are not ready (Netconf 1.6.2). The Neon SR2 deadline will be postponed, probably to the 5th of September which is also original Sodium deadline. Ongoing talk to postpone Sodium too.

### Code review:

### Deprecated Warnings:

Finished the jobs for the Future object handling. Guillaume started to work on the Databroker. We had to redo the work already done, because core projects were migrated to the new broker only in march, with modifications making our work obsolete. All needed work is done, except a few modifications needed on some of the Junit tests.

OLE added support for Junit test on Renderer and service handler. They started to work on the OLM. The current difficulty they have to face, is that they need a specific framework to do the Junits test because most of the methods are declared as static and final.

Lighty.io: removed some warnings and fixed compilations issues on stable/neon (Neon SR2) However, an error is raised at runtime, apparently without impact. On master, lighty.io does not support the new Databroker dependencies. This will probably have to be fixed on the lighty repo for Neon SR3 or sodium.

AT&T is testing code for OTN, but they still have some issues with devices and are working on solving some bugs. They are willing to push code by mid of next week. This code is including some portmapping and network topology functions, as well as a rendering function.

Bala made some changes on the code that is mapping wavelengths on the flexgrid (bug fixes). This will be pushed in a short time.

### Meeting of the 08/22/2019

#### **General information:**

The ODL developer forum will be just after the ONS in the same place. Netconf project team managed to solve the bug associated with the deviations ( the first attempt broke our NB API ) but this fix come late for Neon SR2. We got some positive feedback from the TSC to have this corrected for Neon SR2 since the bug was associated with Netconf. So this should be fixed for Neon SR2, but this needs to be confirmed (very tight schedule). OLE remarked that the link provided on the Wiki main page (transportPCE facts), does not allow anymore to clone the project. We cannot modify it directly. Gerrit has been upgraded recently and the wiki will be migrated to Confluence soon. This should fix the problem.

#### Code review:

For Neon SR2, all dependencies have been bumped. Guillaume is working at refactoring the code and removing deprecated warnings. He removed vulnerabilities and part of the code smells identified by sonar. A sonar false positive introduced a bug remarked by the netconf team -> easily fixed. Many obsolete methods and classes have been upgraded. This includes some work on future classes (related to multithread) and some transactions. He is investigating on the possibility to work with the new Databroker (as already tired in 78493). Guillaume also started to work on Sodium bump, build is OK but we still need to fix some runtime problems. api and network model modules requires 2 incompatibles version of RFC models dependencies...

We are willing to put the new inventory feature in Sodium. A docker file has been created to have the database easily installed. We managed to make it work for testing but not on the master.

Still working on lighty.io to support Tpce. The proposed demo has been accepted and will be presented on the LF booth at the ONS. Samuel Kontris from Pantheon will provide help to make this.

The second phase of integration for the interconnection with GNPY (handling crank back when no path has been found by GNPY) is currently in the testing /debugging phase.

## Meeting of the 08/08/2019

#### General information:

stable/sodium branch cutting ongoing - some releng issues and master branch is locked Neon SR2 deadline is today for managed projects: mdsal bumped to 3.0.10 and everything has been cherry-picked to stable/neon branch. Still some issues with deviations - no news from upstreams.

#### Code review:

- Topo Portmapping consolidation merged and backported to stable/neon.
- Junit tests adapted by Abbas mainly a revision issue.
- PCE vulnerabilities identified by Sonar fixed
- Currently struggling with the bump to Sodium on master in private mode
- lighty.io update pushed by Juraj but not working yet

### Meeting of the 08/01/2019

**General information :** Code Freeze for sodium managed projects is today. Neon SR2 deadline is 08/08 for managed projects. We have to think of what we want to put in this release. There is a discussion at the TSC about shipping a PCE inside ODL - transportPCE has been mentioned.

### Code review:

Some new updates on the Service Handler Junit tests have been pushed and merged.

Inventory: a Docker configuration has been pushed on Gerrit testing branch. It allows to set up a docker container with a preinstalled MySQL database and to bind Unix socket with the host. The current configuration does not work with TCP socket for the moment. The credentials have also to be set directly in the .m2/settings.xml to be taken in account.

Topo Portmapping consolidation: Shweta finished the review of the related changes and reported 2 issues. One was easily fixed. The other one concerned the management of XPDR without PortQual. It has been fixed by Christophe who also remarked the absence of PortQual was also affecting the connection map treatment, even if it is not believed to happen with a correct provisioning - a JIRA improvement ticket has been created. ATT is OK to merge the code in that state.

## Meeting of the 07/25/2019

### General information :

Gerrit UI upgraded - it is now more possible to use Draft but changes can be marked as private on the Gerrit UI. Call for ONS demo - deadline submission for 07/31 - transportPCE will be proposed.

### Code review:

PCE pending change has been merged.

Abbas SH UT merged.

Dhruv 2.2.1 bug fixes merged.

topo Portmapping consolidation changes has been reviewed and cleaned on the Orange side. ATT will finish to review and test it against real devices this week

### Meeting of the 07/18/2019

General information: No specific information

#### Code review:

OLE has worked on the update of Junit tests for the service Handler which allows to reach a 68% coverage. This will be continued next week. They will also start refactoring the Junit test for topology and portmapping following the code consolidation.

Christophe and Gilles added some updates regarding functional tests (Topo-portmapping, Renderer, OLM, end to end functional tests).

The existing functional tests have been aligned for 1.2.1 and 2.2.1 devices, with bidirectional configuration. End to end functional tests are currently failing because of an issue with upstream projects (deviations are no more supported). Guillaume tested the removal of the deviations (mainly concerning topology structure according to node configurations). The service data store is running correctly when deviations are removed.

In the topology, for tp of ROADM nodes, we handle now the flex-container (frequency and wave in addition to the wavelength number). This container is needed to build the tp in the OR topology for transponders. This will however need to be adapted after Dhruv's patch "Add bug fixes for 2.2.1 devices" is merged.

Ahmed will send AT&T a detailed description the problem encountered with last version of PCE (tp-id not appearing, truncated path where we don't see the SRG, no found path whereas the continuity in the vertices is provided).

AT&T will work with Ahmed to check the impact of the OMS attributes and the changes made in the handling those in last PCE patch.

Narayan is presently testing 2.2.1 changes in inventory; once inventory is working with neon this will need to be merged.

For the following week, Orange will try to merge the patch "Add bug fixes for 2.2.1 devices" from AT&T. After this has been done, Christophe and Gilles will rebase their last patches, and adapt the functional tests so that they run with latest implementation of mc and nmc channels.

If this can be done next week, this will allow AT&T analyzing the patches on topo-portmapping-consolidation, and to merge (if possible) these patches.

Next meeting (25th of July and 1st of August are maintained). The meeting of the 8th will depend on Guillaume presence in the office. The meeting of the 15th of august is canceled due to bank holidays in France.

### Meeting of the 07/11/2019

### General information:

Submission for ONS Europe has been postponed to the 12th of July. Call for Demo has been sent. Guillaume may propose a Demo at the LNF booth and porpose pantheon to join it (Integration with lighty.io)

### Code review:

Add OMS attributes to topology functional test: the functional test have been adapted to include OMS attributes. The change pushed by Shweta on PCE may require some additional functional tests to be defined to test the whole set of new features that has been introduced. Also, some exception handling and some sorting function had been removed from the changes made by Orange. These functions have been re-introduced. Ahmed identified a problem when we calculate a path between 2 ROADM. In some cases the path does not includes the SRGs, in some others the PCE cannot find a path the path in spite of a continuity between the 2 ends. He also observed that in the path provided by the PCE some tp-ids are missing (only tp-node-id are present). A change was made to check the OMS attributes presence only in the case of ROADM to ROADM links.

Service reconfigure and service restoration Junit test have been pushed, which increases the coverage.

The change pushed by Dhruv allowing to address the interface naming convention with mc and nmc leads to some functional test to fail. The functional test shall be adapted to manage the naming convention changes. They have been adapted, but we still have some tests failing, when trying to delete the interface (test 19 and 21). This needs to be investigated. Som mc conventions changes were forgotten and corrected during the meeting.

PCE change pushed by Shweta. Some exception handling and some sorting function had been removed from the changes made by Orange. These functions have been re-introduced. Ahmed identified a problem when we calculate a path between 2 ROADM. In some cases the path does not includes the SRGs, in some others the PCE cannot find a path the path in spite of a continuity between the 2 ends. He also observed that in the path provided by the PCE some tp-ids are missing (only tp-node-id are present). A change was made to check the OMS attributes presence only in the case of ROADM to ROADM links.

Nokia pushed some OpenConfig models. This is just the initial phase of their push to handle OpenConfig Transponders.

Gilles and Christophe pushed some code to minimize the number of access (reading) made in the device. They adapted portMapping, so that the topology can be fully built directly from the portMapping without requiring new access to devices. They have also change the logic to create the logical-connection-point. This better addresses the unidirectional cases. For Unidir configuration we check the presence of coherent information (presence of partner port). So for Xponder node, some information have been added to the portmapping (associated-logical-connection-point). Only link creation in the topology requires to read additional information (Ildp) in the device. This make sure that the topology is 100% aligned with the portmapping. There is a clear demarcation between the device and the topology, performed through portmapping. A yang file has been created to augment the topology and put information related to the connection map.

Inventory: we have faced a runtime problem which prevented it from running on the master branch. Malick is going to work on a docker container for providing the sql database configuration.

We have an issue with the service-list causing the end-to-end test failing. We are investigating on the probable cause. This is probably linked with the deviation problems.

Guillaume proposed that during his absence the different committers take his role. For what concerns topology and portmapping consolidation, the contribution of AT&T to merge the code will be appreciated, especially if we consider that a conflict with the push address the interface naming convention.

### Meeting of the 07/03/2019

#### **General information:**

Fluorine SR3 in on the rise, and tpce will be part of it. ONAP use a very different package of ODL than the one we rely on, and we shall take care of this when integrating tpce in ONAP.

### Coding activity:

Functional tests were developed for the code associated with GNPY interconnection. A container has been published to dockerhub to provide a GNPy server instance. It can not be automated on ODL Jenkins (yet) Ahmed addressed some bugs highlighted by Jonas concerning the code for interconnection with GNPY and associated tests.

The patch "Add bug fixes for 2.2.1 devices" pushed by Dhruv is currently being processed. It addresses a bug in the creation of NMC and MC interface (change in the creation order) and also modifies the way frequency is calculated for OCH interfaces. Today we have an issue in merging that code because it breaks the rspn221 functional tests suite that needs to be adapted consequently.

We are also in proceeding to the integration of PCE update to supports include constraints pushed by Shweta. At the time the code was submitted, it was OK, but in the meanwhile, because of different changes merged, we need to solve a merge conflict.

Inventory: some adaptations have been made to support 2.2.1 release in place of 2.2. Still working on completing the code to support R2.2.1

### Meeting of the 06/27/2019

#### **General information:**

We have been asked to release our artifact for Fluorine SR3. Before doing that, it was necessary to upgrade yangtools and ODL parent versions, what required some code adaptations. The Fluorine SR3 artifacts promotion has been requested to a new ticket system web site that replaces the helpdesk mailing-list.

Developer Design forum (DDF) of ODL: Linux foundation will probably keep it collocated with ONS in Anvers

### Coding activity:

Ahmed A will handle the Junit tests, replacing Rami. He will start continuing with Service Handler Junit tests. SONAR tool shows that the introduction of release 2.2.1 led to a global degradation of some indicators (even if transportPCE is still highly rated). thus we are currently working on improving the code quality, focusing on code smells. We already reduced the number of code smells but need to keep on this effort.

Ahmed T has modified slightly some of the rpc defined in tpce to better include interactions with GNPY. Functional tests associated with GNPY interconnection have been developed. GNPY docker has been included in test.ini so that GNPY can be launched when functional tets are launched.

The change 82423 introducing some bug fixes for 2.2.1 has been rebased. It builds. We have with some issue with functional tests that must be redesigned to take into account the introduction of mc and nmc interfaces.

Inventory: The code has been cherry-picked from testing branch (based on Fluorine) to master branch. There is still some issues to solve. Narayan will push some code to improve support of devices 2.2.1. Susmitha has been working on OTN, focusing on the Renderer part. New rpc have been defined for service creation and deletion. A first implementation of OTN service creation and deletion is ready for testing on equipment. (starting next week). The developments include the factory for interfaces associated with OTN If all information required about ports are provided in the rpc for service creation, the rendering function is performed without checking ports parameters such as trib-ports/slots and possible restrictions. If not, then the rendering function will include some checks on the ports to validate them. This way complex function requiring to make lot of test and check on port capabilities could be developed/completed progressively. This will make possible to have first implementation in a shorter time. Orange has started working on JIRA TRNSPRTPCE109 item: consolidation of Portmapping and topology building. The main goal is to make sure that information in PortMapping and Topology are 100% consistent on one side, and to limit the number of access we need to have to the device to retrieve relevant information on the other side.

### Meeting of the 06/20/2019

### General information :

Fluorine SR3 is ready to be released for managed project. There will not be a lot of things we need to push in this release for transportPCE.

End to end functional test for 2.2.1 devices has been pushed and merged. Re-enable Jenkins -1 voting in functional tests patch allows to automatically check the new change sanity.

Test on portmapping and topology have also been re-introduced and are used in the Jenkins functional test suite. They have been adapted so that this approach can be used even in case one test is supposed to lead to a FAILURE result.

Some additional Junit tests for Service handler (ServiceHandlerImpl) have been pushed to increase the coverage.

Handle OLM when span loss is greater than 28 dB has been merged, since Junit tests have been adapted to fit with the code adaptations. GNPY code has been merged.

A patch addressing the bug pending on deviation support has been merged yesterday in NETCONF project. This has an impact on upstream dependencies (Netconf 1.6.2-SNAPSHOT) and some test are now failing (mainly test concerning Service Handler)°. We are working on understanding the issue that is probably associated to some changes affecting RESTCONF.

Shweta pushed a patch on the PCE,: some restructuring has been done including a change in the library that are used for path computation. Inventory: cherry-pick it from testing to master branch and made needed adaptations.

#### other topics:

Middle checkpoint for Sodium is on the 4th of July. The code will have to support Java11. Code freeze is planned on the 1st of August.

### Meeting of the 06/13/2019

#### General information:

Fluorine SR3 is about to be released and we shall be asked to provide an update for thransportPCE in the coming weeks. In ONS Anvers Guillaume will submit with Pantheon a session about "Managing Optical equipment with OpenDaylight and lighty.io in a microservices approach". A demo will be proposed on the same topic (later on since the demo submission time frame is not the same).

### YANG models deviations support:

Juraj confirms that deviations in OR network model are not supported by our upstreams. Our netconf and restconf dependencies have been bumped to Neon SR2 and this already improves the situation: there is only one error left related to RFC8040 models support by restconf. Some changes have also been pushed by Pantheon in the netconf project but they have not been merged yet. Once done, it should be possible to avoid removing the deviations to start tpce with lighty.io.

## Coding activity:

Our netconf and restconf dependencies have been bumped to Neon SR2 since SR1 snapshots are no more available but the documentation does not provide any update for mdsal/controler binding and bundle parent pom versions.

Pantheon posted a change to build transportPCE with lighty.io. The Readme provides the procedure to build Tpce with lighty and gives some elements of comparison about performance between karaf and lighty.io based on TransportPCE functional tests suite. The current procedure requires to build TransportPCE with karaf first, then build lighty-core and then build tpce specific lighty "launcher".

Some timer constraints have been added in OLM in order to modify them easily and being able to speed up the functional tests (which relies on simulators). Before the tests are performed, constants are accessed and changed in a C-style preprocessor fashioned sed command. Shweta suggests that we also change the default value of the constants to 180 s for transponders, and 12s for ROADMs in order to address the TRNSPRTPCE –88 ticket.

GNPy has been merged. Ahmed is currently working on Functional tests associated with this code. The change contains YANG models to describe GNPy restconf API but they are not yet official since the Pull Request made on the TIP repo (GNPy hosting project) is not yet merged.

PCE: Shweta is working on the PCE code to include all the changes that have been done on AT&T side. However it will take a longer time than what was initially expected, since a lot of changes have been made which complicates rebase operation.

Dhruv pushed a patch "Add bug fixes in 2.2.1 devices" related to nmc creation. It solves various bugs. Dhruv will list them in the commit message in a next PS. Among other things, it corrects the naming of mc/nmc interface in accordance with the openROADM white paper convention.

Change 82419 pushed by Christophe and Gilles solves a java error and allows to initialize the value of the FixedFlexImpl Constructor. Further work wil be needed to adapt it according to the patch Dhruv pushed once it will be merge - as well as the functional test (Change 82418) shall be adapted with correct values.

OLM: correction introduced for span higher than 28 dB: Christophe and Gilles to coordinate with Rami since unitary tests need to be adapted according to the change introduced.

Guillaume has worked on re-enabling Jenkins voting in functional test so that if a new patch introduces regressions or incompatibilities making functional test failing, a -1 vote will be generated

### other topics:

Sprint 9 is closed on JIRA and Sprint 10 should be launched tomorrow.

### Meeting of the 06/06/2019

#### **General information:**

Some issues with the Linux foundation framework will lead to a late delivery of Fluorine SR3.

#### YANG models deviations support:

There are some issues identified by Juraj with the deviations introduced in transportPCE with openROADM version 4.1 support for network, network-topology and otn-topology models (OpenROADM started to use deviations in version 3 but transportPCE bumped directly from 2.1 to 4.1) The ODL restconf module seems to not support these deviations (might be also be a problem with yangtools). The problem raises errors when karaf launches the restconf module. There is no incidence on our functional tests but it prevents lighty.io from launching properly. AT&T confirms that older versions of ODL were not supporting deviations, more precisely, it means that the attributes corresponding to these deviations were not seen. Guillaume will raise a ticket on JIRA (https://jira.opendaylight.org/browse/TRNSPRTPCE-126) and Shweta will comment it if needed.

#### Coding activity:

ServiceHandler JUnit tests for renderer have been merged on Neon SR1. All functional tests have been upgraded to HoneyNode, so that they no more rely on Testool. Honeynode simulator for 2.2.1 has been published. Specific test for 2.2.1 devices have been developed. We have currently completed the test suite initially for 1.2.1 with 2.2.1 dedicated tests. Only the end to end test for 2.2.1 (pushed today) has not been merged. PCE and topoPortmapping do not currently need to be duplicated for 2.2.1 devices.

We have some issues with get-pm retrieving just one item. To reproduce this on AT&T side we suggest to use the master branch. Shweta mentioned that AT&T when pushing the code for the support of 2.2.1 included some new code for PCE (not related to the management of R2.2.1, but adding some features, and including some changes in the libraries), and is asking if we can merge this piece of code (Change 80051). Guillaume suggested that Shweta pushes again the corresponding code, limited to PCE, since this code was drown in the ordm 4.1 network models change and that the branch evolved a lot meanwhile. The patch provided by Shweta for the PCE (managing "include" constraints) is checked. The Junit tests have changed parallelly. We will need to check with OLE, if Junit tests need to be redefined. But prior to do this and merge this patch, we shall wait for the confirmation that this will not affect the push of the modified code for PCE (associated with 2.2.1 release). Shweta will confirm beginning next week whether we can do it or not.

#### other topics:

Dhruv mentions they have started developments of OTN Renderering function, and that they are testing it on OTN OR equipment .

### Meeting of the 05/23/2019

#### **General information:**

Transport PCE will be released with Neon SR1 Fluorine SR3 will come soon.

#### Coding activity:

Change of Narayan on inventory was cleaned up. Another change should come. Shweta mentioned that AT&T identified some issue with the renderer running on 2.2.1 devices. They have solved the problem and will push some code in a short time (on master branch) Original change for support of version 2.2.1 has been split in 2 pieces. Still some issues with functional test (on topology and OLM)

### Meeting of the 05/16/2019

### General information:

Neon SR1: SR1 distribution is ready for core project. As our upstream dependencies were not ready we couldn't stage. Luis merged the Bump to Neon SR1 dependency (branch was locked). next release shall be easier to handle. Tpce was staged and Guillaume promoted the artifact for the integration. There will be beginning of June a cross developer forum.

### Coding activity:

Once the bump to neon SR1 dependencies will be merged, building issues shall be solved (seems this was a problem linked to Netconf dependencies). Master branch shall work again. Unit test for service Handler: the current coverage is 51 %. It had decreased due to the integration Network Model 4.1 and the last module for 2.2.1 equipment management. Ahmed is working on functional test to validate GNPY interconnection. The problem with the master branch made the integration of GNPY code difficult (still not pushed on Master branch.) Christophe and Gilles have started working on functional tests for 2.2.1. They are working on configuration with 2.2.1 devices. Shweta has pushed some code for PCE to handle include constraints.

### Meeting of the 05/09/2019

### General information :

Neon SR-1: Needed to bump dependencies on Neon SR-1, but could not merge the code ourselves since the branch was locked. We are waiting for their feedback: release was postponed to the 9th of May, so that self-managed project were supposed to integrate by today.

## Coding activity:

Workaround provided by Dhruv to handle Network model issues in GNPY module, was helpful and solved the compilation issue highlighted during last meeting. Corresponding code has not been published by Ahmed on Gerrit yet.

Cleaning the inventory devices, removing some category bugs, but still have some issues. Narayan made some changes in the code, but did not have the time to push it on Gerrit.

Christophe and Gilles worked on the integration on the Renderer and OLM handling version 2.2.1. The evaluation is finished, and the code runs with Honeynode simulators but is also not published on Gerrit yet.

For cross-connection in device 2.2.1, the renderer is configuring connections between OCH interfaces that do not exist, whereas it should create the connection between nmc interfaces. This was corrected and allowed to make the render operate a service-delete (after deleting the right interfaces). Then comes the question of the NMC and MC naming. At that time no naming convention was defined. So a naming convention can be proposed. It does not need to be formally discussed in OpenROADM community, as it is not strictly in the specifications, and some choice might be made in controllers independently of any specific framework, however this could be done.

With device 2.2.1 for PM we can create an IID to point to the full list of PM. When we try to create an IID to a specific PM of the list we do not succeed in pointing to only the targeted PM. Whereas with Netconf Browser we can point to only one PM.

Until now AT&T had only example of PMs for 2.2.1 transponders. Not for ROADM. Will try to provide some samples of PM data for ROADM 2.2.1. so that we can test it.

Shweta will also push some code for including constraint in the PCE in the coming days.

### Meeting of the 05/02/2019

#### General information:

Current sprint focuses on getting a robust base (fully tested) aligned with latest developments and bug corrections coming from the different contributors. This includes Handling 1.2.1 and 2.2.1 Devices, being aligned with letf network topology (RFC 8345 / openROADM Network model 4.1), and having an acceptable Junit Test coverage.

#### Code Review:

Christophe and Gilles updated the functional tests to support OpenROADM network model 4.1. They started working on latest patches pushed by AT&T, including 2.2.1 release management for renderer and OLM "Code with remaining 2.2.1 modules", after Guillaume rebased it and solved merging conflict; and "Upgrade to 2.2 Device Model and 4.0 Network Model".

GNPY: Ahmed still working on pushing the code on master for GNPY. "Exchange with GNPy to check path feasibility" includes the addition of gnpy data model in api module, of the package in pce to connect to gnpy and the modification of PCESendingPceRPC to support gnpy. The code has been updated to support Network model 4.1, but he still experiences some issues in handling this: compilation is not possible due to an object type not recognized in network model. Dhruv proposed some help. Ahmed to send an extract of the corresponding LOGs. TPCE sends the path is has found to GNPY, translating it to constraints. If GNPY finds the path is not optically feasible, it sends back a new path that is feasible to the PCE. PCE shall translate this new path as routing constraints (include). However PCE does not currently handle "include" routing constraints. AT&T will check on his side whether they have or not some code for this. Some code with added features might be available for PCE module.

Some bugs in topology tests have been fixed (TRNSPRTPCE-86). Removed in some tests the manual node deletions in openroadm-network which is performed by TransportPCE.

OLE continues improving coverage of Junit test: service Handler coverage now reaches 65%.

Dhruv mentions AT&T started working on OTN. He will provide a diagram of the algorithm to be put in place so that we can provide a feedback.

### Other topic:

Guillaume worked to be ready for Neon SR1 which is now planned for the 9th of May.

Best option for the presentation of the long term roadmap of transportPCE seems to be Friday the 19th of May, if we want to have at least on representative of each involved company.

## Meeting of the 04/25/2019

### General information :

Neon SR1 deadline for managed project is tomorrow 04/25. TransportPCE code is ready for Neon SR1 and will include: Unit test update, 2.2.1 device management for topology and portmapping, update of the network model to 4.1 (RFC8345).

## Code Review:

There were pending changes from last week Upgrade network model from 2.1 to 4.1 had some a few unit tests no more working (mainly PCE). Faulty unit test have been removed, so that this commit can be merged and integrated in Neon SR1. Functional tests needed also to be updated to adapt sample config files and URL in python scripts. Shweta made some update, following testing with equipment ("code with remaining 2.2.1 modules, OpenROADM interfaces"). Guillaume mentions that it will be difficult to integrate this code (merge conflict). AT&T suggest that we focus on the modifications related to modulation format in OpenROADM interfaces in a first step. Code for interconnection with GNPY has been pushed, but some cleanup is needed. Also need to think on the way to make GNPY available as a container and change the code so that IP address currently hard coded in the code can be manage more flexibly. Inventory: currently in the process of merging the code. Potential bug detected. NArayan will look at it.

### Other topic :

With Neon Release, running 1.2.1 devices may fail when they do not expose their model via get-schema. A possible explanation of those issues with ordmodels may be that ODL Neon upstreams brought a lot of changes with the way ieff and iana models are handled in dependencies.

Olivier would like to program a "sprint planning" meeting to discuss the best way how to address long-term objectives commonly.

### Meeting of the 04/18/2019

### General information:

neon SR1 coming soon and dependencies update.

#### Code Review:

Merge of 2.2.1 device support related changes. Network model 4.1 (RFC8345) still pending: still issues with Junit tests but close to be merged. Demonstration of MySQL interconnection with the inventory by Narayan, Malick able to reproduce the connection at the end of the meeting. Still much work to do on that change but the DB provisionning can be reproducted on the testing branch.

#### Meeting of the 04/11/2019

#### General information:

TransportPCE has integrated the Neon SR0 Release. https://www.opendaylight.org/what-we-do/current-release/neon https://www.linuxfoundation.org/press-release/2019/03/opendaylight-most-pervasive-open-source-sdn-controller-celebrates-sixth-anniversary-with-neon-release/

TransportPCE is mentionned in an article following the OFC demo. https://www.ofcconference.org/en-us/home/news-and-press/exhibitor-press-releases/open-roadm-demo-at-optical-conference-shows-resili/

Andre Fuetsch (AT&T CTO, president of AT&T Labs) made a keynote last Thursday at ONS NA 2019 about "Opening up 5G and beyond" discussing the Open ROADM use case. https://onsna19.sched.com/event/LKcY/keynote-andre-fuetsch-president-att-labs-chief-technology-officer-att Guillaume presented the transport PCE project in a session that was well received, raising a number of questions. The presentation is available at: https://events.linuxfoundation.org/wp-content/uploads/2018/07/ONSNA-TransportPCE-Full-Interworking-in-Optical-Networks-.pdf

The functional test automation presentation with Cédric at the ODL Sodium DDF has been well received too. https://wiki.opendaylight.org/images/e/e3 /ODL\_Sodium\_DDF\_2019\_-\_functional\_tests\_automation.pdf https://wiki.opendaylight.org/view/OpenDaylight\_Presentations:Main#April:\_Sodium\_DDF\_.28Apr\_1-2.2C\_2019.29

Redhat is starting to put its development effort on Kubernetes. As they were considering ODL as an enabler for OpenStack they will reduce the workforce involved in ODL. https://onsna19.sched.com/event/LKTZ/next-generation-nfv-orchestration-tal-liron-red-hat

#### Code Review:

Narayan pushed on stable Fluorine the inventory with MySQL support cherry-picked by Guillaume on testing. (There is a bug in git-review: if 2 branches are closed, and the name of the exact branch is not specified in the command, the code may be merged on the wrong branch.) Many warnings on buildtime. Next step will be 2.2.1 update for device. Dhruv pushed some code with OLM update (still in merge conflict) Christophe and Gilles made some commit starting from 80051 change splitting it. Dhruv push will be a complement to the Renderer and the OLM. Currently upgrading the network models to 4.1 release Rami has continued with Service Handler Junit Tests increasing coverage to 65 %

### Other topic:

Ahmed made a demonstration of what he is doing in term of interconnection with GNPY

## Meeting of the 04/04/2019

### Code review:

Dhruv made a push including OLM for 2.2.1. As this patch is based on Network version 4.1, and the current code on master is based on Network 2.1, the integration of this code is in standby until we integrate some other features.

Christophe and Gilles commits of the week aims at complementing the code pushed for Neon SR0, starting from change 80051: Upgrade to 2.2 Device Model and 4.0 Network Model.

Retrieve topology modifs from change80051: provides the additions for the management of 2.2.1 device in topology. Reintroduce Rdm2Rdm link in topo with device 221: allows building link ending on 1.2.1/2.2.1 devices, completing portMapping with GE interfaces from Ildp in CpToDegree and adding the removed method to delete mapping and node/link from topo when devices get disconnected. Downgrade topo. mod. from NetworkModel 4.1 to 2.x: downgrade code to support topology models currently used in Neon ODL distribution. Code correction to integrate 2.2.1 devices in topo: changed several device datastore from config to operational and reactivated node deletion/portmapping deletion.

This allows to have the topology mounting for both 1.2.1 and 2.2.1 devices, but we still need to solve an issue with the PCE (unable to find a path on a topology based on 2.2.1 devices).

GNPY interconnection: currently works as far as GNPY finds a path corresponding to the constraint sent by tpce. Ahmed is working on supporting callback when no path can be found (performances evaluated on the path provided by tpce not in line with specifications). Note: this code will be pushed on Gerrit later on.

Narayan pushed the code for inventory on Gerrit. Malick solved some issues with the pom dependency and features (alignment with Fluorine SR3). Project is building. My Sql database builds. We still have issues in detecting nodes: inventory supports only 1.2.1 nodes. HoneyNode managing 1.2.1 models relies on a few 2.1 models (port-types). This might leads to some issues. Narayan will push some code supporting 2.2.1 in a short time.

### Meeting of the 03/28/2019

### **General information:**

Guillaume will participate next week at the ONS (presentation on OpenROADM and TransportPCE) and the DDF (presentation on CI/CD) which will be held at Ericson location in San Jose.

Neon status: Neon was released this week with only 2 self-managed project integrated: TransportPCE and Json Rpc.

Code review: The documentation has been updated for the integration in Neon. It is no more in the docs project, but in transportPCE repository. 2 profiles have been defined in tox.ini to check that the doc is correct. When the release is staged, the docs are checked.

All devices have been upgraded to 2.2.1. on AT&T platform. Shweta and Dhruv pushed some updated code, tested on the equipment, and updated models. This code was merged for integration in Neon. Now the supported models are 1.2.1 and 2.2.1. Alarm (notification Listener) and LLDP are available and have been staged.

Narayan provided some code for the inventory but did not share it on Gerrit. Testing is the right branch to push it.

CICD: Cédric and Guillaume continued working on continuous integration and cross-testing. A docker with transportPCE environment for cross testing is available, as well as dockers for simulated nodes running HoneyNode.

## Meeting of the 03/21/2019

#### General information:

TSC are asked by Linux Fundation to vote for OPX project introduction.

Neon milestone: Neon is officially released since Tuesday the 19th of March for managed project. We had one week to merge and stage the release which must happen next Tuesday.TSC is asking preferably by monday for not postponing the announcement. Guillaume think that it will complicated to check if the inventory operates fine with Neon code to include it in SR0. However it shall be possible to include it in SR1. Christophe and Gilles pushed some code for portMapping 1.2.1 and 2.2. This code will be pushed and staged. Common with 2.2 is already in Neon. Updated PCE updated with Shweta changes has been also merged. So Portmapping 2.2 will be integrated in SR0. Renderer for SR0 will only support 1.2.1. Current code is missing notification for 2.2 devices. Dhruv propose to commit it and Guillaume will decide whether we merge it or not. Link discovery and topology handling with 2.2 equipment will be pushed in SR1 When we have neon code ready, AT&T propose to test it in their labs.

CICD: Cédric and Guillaume have worked on continuous integration and cross-testing. A Docker (not merged) has been created for the simulators. Ongoing work to create a docker with transportPCE environment for cross testing.

### Meeting of the 03/14/2019

### General information:

Neon Marketing press release: Linux Fundation has asked to provide feedback on how operators use ODL in several e-mail streams. We have tried to build a connection between the people involved in this. AT&T already provided an answer, Orange needs to complement previous communications on this topic. DDF Forum: Presnetation / Talk proposed about how improving CI/CD with OPNFV tools (Cédric ollivier): See below.

**Update on Neon:** Guillaume tried to stage the release, with no possibility to do so because some dependencies are missing or not correct. Upstream project are not ready, and we have some additional time to integrate code. Shweta proposed new code for the PCE: by default the PCE was using versions of IETF models which does not work. No regression have been identified (including Port Mapping). Guillaume is confident in merging the code and cherry picking it on Master branch for integration in Neon. Orange succeeded in rebasing the code with version management, splitting the changes to separate version management (1.2.1 and 2.2) -> Sync common folder from the code corresponding to the network model update and recombined the code. The code compiles but we observed some issues with the PCE. So if last version of PCE pushed by Shweta can be merged, this should help in having everything up and running. Guillaume merged several minor changes from Ahmed and solved some SONAR issues (problem of constants that can't be modified). Inventory feature: AT&T is trying to make the inventory work with newer release ((Fluorine / neon / master) On Orange side, building Fluorine project with features and inventory had some issues. Building it with Nitrogen works. Importing the project in Fluorine, the project is building but karaf does not run. Narayan asked Malick to send the update he made so that he can investigate about it.

**CICD:** The difficulties we have in evaluating patches is that we have the returns from tox but we can't see the results and have to wait more than one hour to get them. We have created a bot which has voting privilege. This way we can launch only the code we want and access directly the results. The other advantage is that we could plug the bot to a hardware platform to run some test. This is something we are investigating as part of the OPNFV.

other topics: Jonasz recently raised a coupled of issues. He has a project with a vendor. A conf call is organized on the 15th of March to discuss. Version management: we agreed on the fact that the code shall not strictly support all versions, but only main releases, provided that we manage main evolutions that have a deep impact on the models. We highlight the fact that having a documentation that provides incremental view of models' updates would be helpful to make sure we don't miss these evolutions. As a major guidelines we agreed that next evolution shall focus on Assurance, handling alarms and services' life cycle: the controller shall be able to maintain services, monitoring their health.

### Meeting of the 03/06/2019

### General information:

- TransportPCE demo at OFC this week.
- · Many feedbacks from Jonas M. (ri.se) on JIRA. Proposal to schedule a specific meeting at the end of next week.

- new Junit Test for rendrer merged. Rami is now working on SH. Feedback expected for PCE UT because of blocking issues.
- Narayan and Malick are working hard on the inventory: MySQL DB structure migrated to SQLite, prenitrogen build and inventory feautre startup OK but still not clear if data are stored in the DB, neon build under investigation.
- ATTsandbox renderer backported to master/neon and works with ordm 1.2.1 (2.2 tests not yet ready) but it generates troubles with the PCE:
   Shweta will try to look at it for Tuesday. As a common agreement, it is difficult to propose this feature in Neon with a non-working PCE.

#### Neon status:

- · Neon deadline for managed-project is tomorrow. Branch still locked.
- Poms updated (mdsal model to 0.13.2 (non-snapshot)) and render UT + E2E tests integrated
- TransportPCE build OK but the release can't stage because of upstream dependencies not yet available on nexus.

### Meeting of the 02/28/2019

#### General information:

Preparing outbound messaging for ODL Neon release, we provided the following of features for transportPCE:

- Add support for notification in RPC handling
- Extension of the coverage for OpenROADM Service RPC handling: service-reroute, service-restoration, temp-service-create/delete
- Impairment aware path calculation in PCE (OSNR calculation)
- Management of unidirectional ports in path calculation and path configuration
- ROADM to ROADM service creation, for resource reservation when transponders are not present
- Introduction of transportpce-service-path 1.6
- Device version management (up to release 2.2)
- Network and device inventory: store main device information in a SQLite database

For last item, the integration of the inventory will depend on our ability to activate communication with SQLite database. We decided to keep the list as it is and to step back if we see on Monday that we are unable to activate the communications. The integration of other part of the code shall be straight forward.

### Coding activity:

OLE migrated unit test of the renderer module from Fluorine to Neon fixing compilation errors and failing on master branch. The coverage reaches 80%. The tests are submitted for review 80555.

Migration of unit test of PCE module from Fluorine to Neon is ongoing. A report has been made on faced issues. The tests are submitted as draft 80629. AT&T mentions that some unit test fails because the code has changed for PCE. The report on faced issues has been sent to AT&T for review and comment.

Some works on end to end functional tests to have them working on master branch. However some errors and failures appear, and it is not only due timer issues. Might be due to a problem of server. Investigations ongoing.

To prepare for Neon, Christophe and Gilles are working on updating HoneyNode to handle 2.2 configurations. It was not possible to make the docker provided by AT&T (testool environment compatible with OpenROADM 2.2) running but the problem has been solved just after the meeting.

The split of the patch related to version management, needed to solve the merge conflict leads to a number of issues (file missing such as NetconfTopologyListener and R2RLinkDiscovery). AT&T points to the 80051 change that includes all the missing files. So next step will be to reintroduce these files in Sync Common folder / Update Renderer and check that tpce runs on master branch with the version management features adding these files.

## Meeting of the 02/21/2019

**General information:** DDF colocation just before ONS is confirmed. Many bugs and issues filled by Jonas Mårtensson in JIRA. It would make sense to have a dedicated meeting with him to talk about this.

Coding activity: OLE Junit tests development are ongoing. Sync between Narayan and Malick on the inventory feature. Ahmed fixed most of functional tests failure after Neon bump and SP1.6 reintroduction. New renderer from AT&T sandbox successfully ported on the testing branch but it needs ordm 2.2 sims to be tested functionaly. Gilles started to look at it. The changes have been cherry-picked to master (after Neon bump) but it leads to UT failures because of PCE and SH SP1.6 (otherwise build is OK) There are also still functests failures probably because of ordm 2.2.

**Neon:** Neon deadline is coming soon. Since functional tests issues are mostly fixed, we are in a good shape to propose something for Neon. Neon POMs have been rationalized (transitive dependencies resolve models version problems). The branch is locked even if it should not be the case for SM project because there is a limitation in Gerrit that complicates the unlock of a single project. New changes cannot been merged in stable/neon branch. The workaround found to not depend on supercommitter is to delete and recreate the branch from the master since it has not been bumped to Sodium...

### Meeting of the 02/14/2019

**General information:** A presentation of transportPCE has been accepted at th ONS NA 2019. DDF dates and location are still not decided. The demo planned for OFC is on good shape. Fluorine SR2 was released last week. TransportPCE Fluorine SR2 branch has been staged with all test running. Guillaume asked to promote the artifact and TransportPCE shall be part of the SR2 Release.

A testing branch has been created. This is because of synchronization problems which are also experienced on other projects. It is difficult to bump on next release while still developing features, especially for self-managed project with a lot of upstreams. Thus a staging branch (called "testing") between previous stable release and master branch which shall be dedicated to the bump to next release solves this problem. Testing branch is to continue developing features.

The bump to Neon changes have been rebased. This allowed to reactivate almost all Junit tests except a few one currently investigated by Rami. The project build but many functests failed by claiming a relevant data model is missing. Some change in the Netconf Connector may have some impact on HoneyNode.

Testing-branch was successfullt synced with ATT SandBox branch. This includes Renderer 2.2 update. Guillaume tried to to push the patch with version management and upgrade to the network model R4.0. Some issues appeared (PCE?). This patch was not building on the master branch. This patch shall be put on the ATT Sandbox branch. If it works on it, then it will be probably be easier to cherry pick it to the testing branch.

Ahmed has been working on the bug raised by Jonas Mårtensson. It seems we don't have any real issue with the functional test, but that the identified problem comes from lack of synchronization between the network and the topology layer in the topology. The status of the nodes in the different layer are not synced. A user story will be created to solve this in next sprint.

#### **Priorities for Neon:**

For Neon, we will focus on the following feature: - Service-path 1.6 and notifications introduction - synchronization with patch on ATT sandbox (but probably not the Upgrade to 2.2 Device Model and 4.0 Network Model which is too big and that we envisage to put in Sodium) - Inventory. For this last we need feedback from Narayan (getting last version of the code) so that we can work on changing MySql with SQLite.

If demos are planned with 2.2 device, AT&T suggest to put the priority on Renderer 2.2. Then Network model 4.0, and later Inventory. Any help on Neon bump which fails and the ability to provide a Docker to simulate 2.2 equipment network is appreciated. If AT&T guaranties that the Renderer upgrade (management of both 1.2.1 and 2.2) has been tested and work on 2.2 equipment or simulators, we can merge the code. But committers should not merge changes for which they can not guarantee it can work a minimum with ordm 2.2 devices.

### Meeting of the 01/24/2019

#### General information:

DDF dates and location are still not decided. TSC & LFN staff are looking for a cross-event opportunity.

### Coding activity:

The last unit tests for OLE have been merged (PCE and OLM) on the Fluorine branch.

Bump to ODL parent 3.1.6 and YangTools 2.016 is under preparation on master and Fluorine. For Fluorine, everything works fine locally at Orange but some OLM Unit tests fails inside the ODL Jenkins releng environment. AT&T seems to have the same issue locally. The Unit test is calling for set span loss, but device is not there.... There is no issue on the master because the OLM Unit tests have not been cherry-picked yet.

Tox functional tests portage inside ODL gerrit jenkins environment is under heady work. Various issues have to be fixed but hopefully an acceptable solution seems possible. cf https://git.opendaylight.org/gerrit/#/c/78544/

Malick has reintroduced the Inventory feature as a Draft on Master.

AT&T has been doing testing of their code up to the PCE for 2.2. AT&T experienced some issue with the testing (based on Testool). Orange made a patch of testool that can work (patched version of Testool that work with PCE) under the test folder. HoneyNode works with openROADM model 2.1. We did not test it with 2.2. Orange to evaluate how much time this would take to upgrade HoneyNode with an xml config corresponding to 2.2 AT&T also updated its code so that it works with network model 4.0 (which is based on a version of RFC8345) Last patch including additional Junit test for Service-Notification handling have been pushed.

### other topics:

Orange presented use cases for OTN, but the answer does not fit with AT&T expectations: it shall be focused on the type of service to be created and the sequence of RPC involved in the process. Olivier to refine the presentation and make it fit with AT&T demand.

## Meeting of the 01/17/2019

## General information:

Next DDF is under preparation but will be just before or after ONS (from the 3rd to 5th of April for North America). We have some issue with the infrastructure: Nexus was down at the beginning of the week. No merge this week because of too much issues simultaneously (Nexus down, karaf bug, dependency upgrades, Java 11 migration ...). Neither the Stable fluorine, nor the master builds.

### Coding activity:

ATT has reviewed the Sendate branch, and is fine with the portmapping. AT&T mentions that in network model, there is an additional method using device info in place device transaction manager. Orange tried to limit multiple call to device transaction manager. Archana to make a summary of the possible issues and point out where in the code we could have some redundancy using the method.

Orange shall wait before merging the Sendate topology and portmapping proposed changes on master branch, that AT&T has pushed all the changes relative to 2.2 release management. AT&T will provide help to rebase the code for inclusion of version 2.2 management. Another question comes out: our master is on Fluorine. We will have a code freeze for Neon. How can we managed the push of 2.2 version management and the bump to Neon. Guillaume will test the bump to Neon. He will wait until AT&T has pushed the full code for 2.2 version management before pushing the bump to Neon. However the bump will need to be done during the code freeze for Neon (7th of February) Interface between GNPY and TransportPCE: the model to exchange the service-path and provide it to an understandable format for GNPY is available. Ahmed started to work on the extraction of Data from the topology in the DataStore and create the Json file.

#### other topics:

Orange has started working on the code provided by AT&T for the inventory and the alarming. Would like to replace JDBC MySQL connector by the SQL lite connector so that the database could be associated with the distribution and does not require a separate installation.

### Meeting of the 01/10/2019

**General information:** Original deadline for SR2 has been delayed from beginning of January to the 7th of February. The code freeze for Neon is planned the same day for core and managed projects. For self-managed projects, the deadline is either the 23rd of February (final checkpoint) or the 7th of March (official Neon SR0 release date) to provide a stable version of tpce. Documentation is not completely clear about that.

The difficulties to make Neon work (karaf broken) have been confirmed on the release ML. Dependency updates have been proposed for md-sal, yangtools and other old-parents project version. ODL core project are going to switch to Java 11 for Sodium. At that time we are running Java 8.

### Coding activity:

ATT has been working on the OLM, updating it for 2.2, but experiences some issues with the Junit tests, and will contact OLE to see if they can get some clarifications. AT&T also worked on Network model updated to 4.0, but also has some issues with the Unitary tests. These tests would need to be reworked since all instance identifiers need to be changed because of the addition of a Networks container at the top of the hierarchy in the network model. Junits test do not provide in the LOG explanations on where and what failed.

AT&T will start working on OTN, and proposes that we defined together some simple use cases around OTN to start working on that. OLE provided some updates for the Junit test on PCE and OLM having a coverage of respectively 73.1 % and 54.1 %.

Orange has closed the Sprint 6 and briefly went through the different user stories that were closed at the end of the sprint.

#### other topics:

Functionnal test automation: LFN staff confirms maven is not installed on the default tox vm called by their jenkins/remeng macro. It may be possible to install it with a command in tox (on investigations). Otherwise, the LFN might create another specific macro for that. Committers election: Gilles and Shweta confirmed as new committers by the TSC. Inactive accounts lost their committers rights during the migration. Also, due to LFN accounts migration problems, Cédric and Martin accounts have lost their committer rights. They should contact the helpdesk if they want to get them back.

### Meeting of the 12/19/2018

### Coding activity:

Sandbox branch: The yang files have been cleaned. ATT pushed Renderer, and OLM is almost ready, but some unit tests are failing. They would appreciate some help from OLE to solve this issue. Some functional tests cannot work because the network model has not been pushed and PortMapping can be mounted. Dhruv will send some samples of 2.2 device yang models.

Sendate branch: The consolidation of topology management and Portmapping performed in the scope of the Sendate project could be backported to the master branches if ATT feels this could bring value. It is up to ATT to say whether they want to see these modifications in the master branch. Some of the modifications where associated with the uni-directionality of ports which was not tested before Orange made some tests with the Ekinops equipment. Some modifications were made in the PCE code by Orange. But ATT mentions that some modifications in the code might be required also in the OLM and the Renderer, and the functional tests would need to be adapted. Orange confirms that not all the needed modifications in the functional tests were performed.

other topics: Committer election. Shweta and Gilles were internally elected as commiters. So if the TSC accept the election process, they will be officially promoted to the commiter role. Xavier and Johan sent an email to step down.

Functionnal test automation: we were able to run tox from Jenkins by moving tox.ini at the project root. However functional tests can not be launched. The container/VM where tox is run is different from the one where Maven is run which leads to some issues, mostly not documented. A different approach should be to run tox from maven, but this is a little pity.

Some issues have been raised when trying to make work Openconfig models with ODL. Dhruv leaves a comment in JIRA: https://jira.opendaylight.org/projects/MDSAL/issues/MDSAL-182?filter=allopenissues

### Meeting of the 12/13/2018

### Coding activity:

Sendate branch has been synced with the master. Gilles and Christophe pushed their code with modifications for topology and portmapping. Functional Test automation: The documentation was outof-date. The jjb macro is "gerrit-tox-verify". To make it work, the tox.ini file has to be as the project root. Changes are ready but not merged. When merged, jenkins will launched automatically 2 VMs, the first one for maven and UT and the second one for tox / functional tests. ATT pushed their new renderer module to handle 1.2.1 and 2.2 release of OpenROADM on the sandbox and would like some review on it. Question on when we can merge it, since they want to make their sync as soon as possible

### other topics:

SR2 Release of Fluorine: all Fluorine web be delayed one month. SR2 will be 7th of January. We are not able to stage a release until upstream Managed projects have published their dependencies. The timeslot for SM prject to make this will be around 1 week. Committers election: We would like to review the list of committers since there is only one active committer. Proposal to promote Shweta and Gilles and to remove people no more involved in the project.

### Meeting of the 12/6/2018

ATT will add updated code for 2.2 release of OpenROADM in ATT sandbox. This code has been tested on some equipment. Proposal is that ATT test the code using functional tests just to identify potential regressions or evolution of functional test that shall be needed to be in line with added functionnalities. ATT is currently working on including R2.2 in. Renderer and OLM. When finished they will start working on then PCE and Network model..

Patch awaiting for handling of notifications. For service create rpc, as the request is made through the northbound REST interface, with some http server there could be some timeout issues with the way we were handling Rpc. With this patch a notification is sent by the Service Handler when the request has been fully processed. This implies many changes and impacts the way functional test are performed. ATT will look at the code and provide some comments. New functional tests for end to end tests covering all the modules to be pushed in a short time. These functional tests will include testing the update of the topology after a service creation. Orange (Christophe and Gilles) has been working on the consolidation of Topology management and portmapping to make sure that we have a unique way to process Logical connection Point, and solve some issues corresponding to specific use cases we have encountered while mixing various vendors equipment. This code will be pushed ion the branch dedicated to Sendate. It will be visible to anybody contributing. Suggestion is to look at it and decide together whether this would be valuable to push it also on Master branch Orange work on interconnection with GNPY tool is ongoing. ATT has already worked on generation of xml files from Yang models and proposed to share that code. ATT asked if a way to overcome the issue in handling internal connections between client and network ports in transponders had been identified (in tpce or OpenROADM discussions). Orange still did not rule on that topics. It is important to discuss that point before Fujitsu starts to work on OpenROADM network model consolidation, willing to remove "unneeded arguments"

### other topics:

ATT is asking if Orange has some experience on including OpenConfig models in ODL. Orange did not test it at that time but shall be able to provide some feedback about this is a 1 week timeframe, being in contact with a contributor to the Sendate project who have tested it. Tpce will be in SR1 Release and we are already working on what will be introduced in SR-2 Initial deadline for SR-2 was planned 7th of December. Need to investigate if deadline for self-managed will be postponed. Neon: code freeze on the 24th of January. Still a problem with Karaf. Code builds but runtime problem. Deprecated Warning work will be moved to Master branch.

### Meeting of the 11/29/2018

#### Coding activity:

OLM Unit testing: OLE has increased the coverage of the OLM tests. OLE asked support to address some issues and pursue the development. One of this difficulty is that the Operational datastore is read-only and prevents some aspects to be tested. This impacts the test coverage percentage.

Master branch: Merged the Junit tests, ROADM to ROADM service creation, handling of temporary service (creation/deletion). ATT OSNR patch merged; Topology test correction...... Orange is completing an End to End Functional test suite. This test suite is almost finished. 2 Services are tested: Ethernet services between 2 transponders clients, and Optical channels between 2 ROADMs PPs. It it difficult to perform this test since the choice of the ports doesn't seem to be deterministic. PCE can select SRG1 PP1 and at another time in the same configuration SRG3-PP1. It has been proposed to share those tests so that we can pursue the analysis together.

Sync Common Folder: ATT has created a new sandbox branch to backport their local development. It brings updated OpenROADM common models to include both 1.2.1 and 2.2 models. For PortMapping, CrossConnect and OpenRoadmInterfaces, the x"métier"x code has been transferred from the main class to class121 and Class 22. The main class is then testing the device release and rely on the relevant class (121/22) for the implementation.

### other topics:

To be shipped within Fluorine SR1 distribution, we need to be ready by tomorrow. Guillaume made what's needed and made the bump (dependencies update) to pass to the next release (SR2). This will include all the latest bug correction since there is no way to stage the release on a previous change. SR2 deadline is 12/7/18 so there will be probably few differences between sR1 and SR2.

ATT mentioned they have made a demonstration in Super Computer conference about data Center interconnection https://youtu.be/Rl\_hq9l4\_s8

### Meeting of the 11/15/2018

## Coding activity:

OLM Junit Tests ongoing with OLE: coverage around 27.5%. Some difficulties because some the methods are not implemented. OLE to raise JIRA corresponding issues. Service path 1.6 has been merged on the master branch: models introduced in API, reintroduction in the code, and in the functional test Functional tests relying on stub will be removed and replaced by end to end functional test which will cover these tests, since using stubs leads to complexity when handling the different patch. ServiceHandlerDiversityTest is not anymore present: we need to be identify if this was removed volontarily Last commit with this file is:

ROADM to ROADM path calculation patch was added Algo for OSNR calculation has been reviewed by Olivier who is OK with it. Topology test has been modified to support Honeynode rather than Testtool. Not ready, but in good shape. We should wait until R4.1 is ready to change the ord network model and merge the patch that supports the latest versions of the ietf models. Plan is to support network models R4.0, while still relying on R2.1 for device models and service models. We will need to have support for both R1.2 and R2.1 device models at the same time.

### other topics:

stable/fluorine branch is still locked. TSC is creating a supercommiter list for Release maintenance.... Guillaume will follow the initiative of the TSC to simplify ODL, allowing building ODL without OSGI / karaf. The How to Guide has been removed from the Wiki. Team is asked to provide feedback on whether they think the link provided to replace it is OK or if the old procedure is more valuable and needed.

We have still a lot of deprecated warning. The patch is ready for that. However we can still not merge it since it induced errors in current functional tests.

### Meeting of the 11/8/2018

Coding activity: Shweta pushed OSNR Code for regular lines (amplified lines case not addressed yet). Olivier to review the code pushed from a functional point of view. The code to manage ROADM to ROADM link admin state (TRNSPRTPCE-46) shall be ready in 2 working days. OLE Junit tests: OLE has started working on the completion of the Junit test. Priority is on the OLM module. Then will come the topology management and the PCE.

As a reminder, TransportPCE updates for SR1 has not been taken in account by the release automated (buggy?) process. https://git.opendaylight.org/gerrit /#/c/76169/ Since then, many bug corrections in transportpce have been proposed after the Fluorine SR1 first official deadline. It appears that the SR1 deadline has been postponed But transportpce bug corrections have not been included in it because the new procedure and related changes were notified after the new deadline, which let a too small window of opportunity ( even tinier since it was overlapping a few days of PTL unavailability). https://lists. opendaylight.org/pipermail/release/2018-October/016360.html https://lists.opendaylight.org/pipermail/release/2018-October/016299.html Odlparent has been updated on both master and stable Fluorine branches. Yangtools updated to 2.0.12 is merged on the Master branch only: current stable Fluorine is locked because of the SR1 release ongoing validation process. The bug corrections will be (hopefully) introduced in SR2.

Christophe &n Gilles worked in the scope of the Sendate project for T-API modules integration (service creation). They are now working on the realignment of PortMapping.

For the topology management, and more precisely the transponder client to network port mapping, Orange propose to add link ("mapping-link") in Yang models to consolidate the code and avoid the use of tails to solve the issue of this missing object. First will create an augmentation of openroadm network model to add the link that is missing to provide connectivity between Client and Network port, until it is added in OpenROADM models.

ATT mentioned that they will rebase the code they have on their SandBox on one of the fluorine branches, and will push after part of this code. Stable Fluorine and Master branch are at the same level for bug Corrections. But the master branch shall be preferred since it also includes some developments of new features (such as evolution towards Service-path 1.6). Multiple push of limited size shall be favored since large code pushes are always difficult to integrate.

### Meeting of the 10/18/2018

**DDF feedback:** The Release Process will evolve for Neon. It is not completely decided yet but as a self managed project, we won't probably need to be ready for the next miletones. ODL community created in JIRA the different milestones of Fluorine and Neon. SR1 has been postponed. NETCONF project: We shall not hesitate to highlight bugs on JIRA. The issues we are currently experiencing are related to IETF yang models that are inherited. Not well depicted

#### Coding activity:

- Issue with master branch => A patch of Martial to downgrade dependencies to Fluorine SR1 has been merged on the master branch (76794)
- A patch of Dhruv addressing TRSNPRTPCE-17 and tp creation addressing TRSNPRTPCE-12 has been merged on stable/fluorine and master branches

(Bug correction should ideally be pushed on both branches)

• Improvement on HoneyNode code(76796).

For Openroadm release 2, it will make sense to go for 2.2.1 which will be released soon. For OSNR, AT&T did not push the right code. They will correct and push the new code. Good practice is that the owner of the code put a -1 to show that the code is not yet ready for merge. OLM test has been pushed by Martial. But Christophe and Gilles made a few changes in the OLM test (draft mode) that probably need to be considered before the merge

Miscellaneous: The next 2 meetings has been canceled because of holiday period and unavailabilities. Next meeting 11/8/20118

## Meeting of the 10/11/2018

## Coding activity:

Limited coding activity on Orange side this week, due to training. Martial backported some code previously pushed on Master to stable Fluorine. Some review and comments made on the code push by AT&T. OLM functional tests: Martial pushed a first implementation of OLM functional tests on stable /fluorine branch (PS76714 but it will be on master since it's a new functionality).

Master branch Neon is broken (some core projects like Yang tools or Netconf in Neon version are not usable). As a result we propose to update the POM and downgrade them to use older dependencies that works today for our project: fluorine SR1 version of core projects.

Thus Tpce 0.3.0 neon version will be on Master with downgraded dependencies (stable/fluorine SR1) and shall be used for new features development.

Tpce 0.2.1 is on Stable/Fluorine branch (now corresponding to SR1. It shall be used to push code that does not bring new functionalities but solve identified bugs)

AT&T pushed some code on OSNR and corrections on tp creation for Xponders :

- Added OSNR calculation logic into PCE: code reviewed by Orange from a functional view. Some comments made. Asked modification needs to be reviewed with Martin to check the implementation of OSNR calculation on spans made from different SRLGs.
- Correct tp creation of Xponders in topo layer: functional tests do not pass. However this part of the code corrects TRNSPRTPCE-12, not TRNSPRTPCE-35 (Rationalize xponder connection handling in Topo). Thus we do not expect to have a complete correct behavior of Tp handling at that time: this shall be solved at a later step. The functional tests shall be corrected by Orange, since the tests assume that we may have both xponder network and client attributes in some cases (this is wrong).

#### Coding activity:

AT&T made 2 commits this week. First is Correct tp creation of Xponder in topo layer. This patches corrects TRNSPRTPCE-12 (Extra termination ports for XPDR).

Second is Push service name to interfaces. This corresponds to TRNSPRTPCE-17 (Keep trace of service on configured elements). This patch allows to configure the circuit-id of the interfaces with the service-name the interface carries; for Ethernet, Och, ODU4 and OTU4 interface. For OTS interfaces that carries multiple services, the strategy still needs to be defined. Proposal made on Jira through comments on TRNSPRTPCE-17 (concatenation of carried services).

AT&T highlighted the fact that TRNSPRTPCE-4 (The link ROADM to ROADM is not automatically deleted when the ROADM is disconnected) should probably be closed, since a solution was provided for integration in Fluorine. The fact that rather than deleting a link from the topology database the status of the link shall be modified so that PCE knows that it is unusable (avoiding the need for operational team to re-provision spanloss-base when the link reappears in the topology) shall be put in a new User Story. Olivier to close TRNSPRTPCE-4 and open a new User Story.

Shweta confirmed AT&T will provide some code for OSNR calculation. Some issues in pushing the PCE code since it diverged widely from the code provided in stable Fluorine. (restructuring of the PCE, + new feature such as service-diversity). Suggestion is to limit the code push to OSNR calculation associated features.

Martial finished the consolidation of the service-path model, to reintroduce SP1.6 models in API models first and then applied it to TPCE code (Still draft on Master branch: -> Guillaume to discuss with People from Netconf project so that we can have master running again) (TRNSPRTPCE-44) "Remove deprecated warnings" (TRNSPRTPCE-42) code ready. Will be merged when core projects make corresponding updates.

T-API (local developments). Preliminary implementation of T-API service-create-connectivity rpc using PCE and Renderer stubs. E2E service creation between 2TSP made only in one direction of the path (bug on running platform prevents creating the service in both directions). Implementation highlighted some bugs with current code:

- Inability to populate the topology with all SRGs when there is a gap in SRG numbering
- Problem with Rollback function when Service path implementation is incomplete. Rollback does not de-provision correctly what was configured.
   This was working with Nitrogen, but does not work anymore on stable Fluorine. (Connected to TRNSPRTPCE-27)

Christophe/Gilles to add bug description in Jira and document corresponding bug already created in Jira (with if possible associated LOG showing errors).

#### Miscellaneous:

Ahmed Presented last week common Orange/AT&T paper on tpce in ECOC. A presentation from Molex/Nistica made at ECOC mentioned they are developing OpenROADM compliant modules.

### Meeting of the 09/27/2018

### Coding activity:

ATT will push a patch on PCE for optical path feasibility analysis in the coming days. Some work has been done to have the code ready for introduction of Flexgrid concept (still on a base on 96 wavelengths at that time). AT&T proposes to push the code. Modalities will need to be clarified when Guillaume is back (where to push it, how to split it). A rebase shall be needed since ATT sandbox diverged from the code current master branch.

Orange started to analyze what could be done with T-API in transport-PCE. Working locally on a module to translate T-API request to request directly understandable by the Service Handler.

OLE shall be able to proceed with the remaining Junit testing by mid-October based on the same resources who worked on the first set of tests. For the Honeynode, OLE started checking out the code just to evaluate the amount of work required for rationalizing the existing code and potentially develop some equipment simulation functions at a later step.

The service path 1.6 yang models have been renamed to have the same conventions respected across the different models. The code is also modified accordingly to handle SP 1.6. The Patch is in draft status on stable Fluorine branch (master branch broken). Orange will start working on OLM functional tests next week.

### Miscellaneous:

Mid-term tpce Roadmap communicated on Slack. AT&T already identified some epics/user-stories in the short/mid-term backlog for which code has been developed. Proposal to AT&T, either to create the corresponding user-stories directly in Jira (for code they are ready to push on the master branch, or stable Fluorine if the branch is not repaired), and assign themselves. For user-stories already in Jira Backlog that AT&T could do, AT&T can assign resources and push the tasks from the backlog to the active sprint.

Longer term epics/user-stories: for the one already present in the Excel file on which AT&T wishes to position, define its own priority, or some others that AT&T wishes to introduce, the proposal is to work directly on the excel file (in order not to overload Jira and keep it dedicated to short term). Modification shall be easily identified (propose using color code in first column).

## Meeting of the 09/20/2018

Martial started to work on the consolidation of the service-path model, to reintroduce SP1.6 models in API models (Draft on Master branch) cleaning up models and import in the different class. (TRNSPRTPCE-44) "Remove deprecated warnings" has been put in standby since core project still did not make this migration. Waiting for clarification on the date of deprecation. (TRNSPRTPCE-42).

HoneyNode: Fix to solve OpenEXI issue on Honeynode (JIRA TPCE12) has been merged on Master. Portmapping has been updated to handle additional configuration on transponders Logical Connection Points (all potential cases identified in the Excel file document) and merged to stable/Oxygen and then to master. Addresses TRNSPRTPCE-34.

Functional tests based on HoneyNode (Renderer, updated Portmapping) have been merged on to stable/Oxygen and then to master branch (TRNSPRTPCE-10/12).

Some work ongoing on T-API (locally at that time). We are currently evaluating the work to be done to implement T-API in transportPCE, mainly for service create and service delete, the purpose is to have in the scope of a research project (SENDATE) the ability to create service from a T-API using ONAP. Ahmed initiated the work on path Optical feasibility focusing on the ability to provide information to external GNPY tool.

Shweta confirmed AT&T will provide some code for OSNR calculation. AT&T is currently revising the code to check his compliancy with Open ROADM implementation.

Some works also for test integration on Jenkins Releng (TRNSPRTPCE-14). Respecting the framework for test integration (only needed for Managed project) would imply major modifications in the tests (Python). Decision not to make it, since this is not a priority: code will not be put on test/integration. This will allow us to launch test automatically with limitations on reports that can be edited (results available on the console).

#### Miscellaneous:

Dhruv mentioned that downloading transportPCE using the links provided in Fluorine and following the procedure defined in the developer guide does not work. The repository shall be imported before installing the feature. The procedure defined in the developer guide needs to be modified.

## Meeting of the 09/06/2018

Status on the Fluorine release integration In a nutshell, TransportPCE has been packaged as an ODL artifact inside the Fluorine RC pre-release. Some bugs in the process has to be solved on IRC before the deadline. The documentation has now been completed. Project versions in master and stable /fluorine branches has been bumped to no interfere with the release. Honeynode compatibily problems with Fluorine (openEXI and netconf-state RPC) have been fixed. All functests passed except the 3 identified openroadm naming issues.

### Meeting of the 08/23/2018

We are currently in Code Freeze state, as Fluorine is about to be released. This means no code can be merge. Code merge for bug corrections or features adds will again be possible during SR1 consolidation. TSC is pushing for tpce to become a managed project. Until now, Orange think that the we don't have enough active committers to be sure to sustain the whole cycle of managed projects. It will be considered at a later step, especially if new contributors join tpce.

Some bugs have been corrected through the following changes: 74929 xponder portmapping, 74930 removed debug statement, 74931 Add check in cp state to avoid npe.

The last update of JUnits tests on Renderer pushed by OLE have been cherrypicked to the master branch (Fluorine)

Some code was pushed as a draft on Master Fluorine branch to solve OpenEXI compability with honeynode. Part of the functional tests (Renderer/service Handler) are performed using HoneyNode, and the same issues as the one observed with Testool appeared (Open EXI encoding different from the one with EXIefficient). A patch to netconf-netty-util module allows to solve this. This means that as soon as the code freeze will be released, it shall be possible to merge this code and have all functional tests operational. This patch also solves rpc 'get-schema' error by putting a netconfState info in the OPERATIONAL datastore and copying in a dedicated folder all the yang schemas needed at honeynode start-up (similarly to testtool). device datastore config listener is also moved from core module 'minimal-distribution-core' to 'honeynode-plugin-impl' module.

AT&T asks for a demo of Honeynode which could help to handle the integration in ONAP. Orange propose to make this when all Orange members will be back (beginning of September)

### Meeting of the 08/10/2018

All changes have been backported into Fluorine and merged except the changes for honeynode related functests. The renderer Junit coverage for critical functions is almost completed Up to change 74742, all Junit tests and functests are OK. We can backport and merges some of those enhancements in nitrogen and oxygen. Some changes have not been merged in Nitrogen and Oxygen branches because of the priority for the release deadline.

Missing Honeynode Functests were reproduced in labs with real devices by ATT before the Code Freeze. Almost all of them passed. For the others one, several patches have been proposed to fix them and merged but it broke some features. 2 conflicts have been reported: - a conflict with the renderer Junit tests: Will be fixed soon=> Action Point: Doha and Martial - a conflict witch change 74648 (XPDR portmappingImpl), likely solveable => conformity with whitepaper,pending Olivier/Gilles or Chirstophe is back.

The EXI issue with testtool was identified by the netconf project team (Jakub and Robert) It is due to a library shift (from openEXI to EXIficient) in netconf /yangtools projects Their recommendation is to bump testtool to 1.5.0-SNAPSHOT But the same issue occurs with honeycomb / honeynode functests also. A quick and dirty workaround for that is proposed in change 74952 with the netconf proxy. It disables on-the-fly inside the netconf session the EXI capability . Timers should be adapted probably since exchanges are no more compressed.

RFC8345 adaption has been proposed by Dhruv and works. However, the models are no more official openroadm models. Until it has been adopted by the openroadm community, it cannot be merged. We can regurlarly rebase the change.

A quick status have been sent to the release manager to confirm we were ready to participate the release tuesday.

## Meeting of the 08/02/2018

### Meeting of the 07/26/2018

The discussions during those meetings focus on the current actions and works to fix the issues encountered when backporting the code in Master /Fluorine. The old ietf-network-\* revision 2015-06-08 draft yangs models have been succesfully repackaged inside the transportpce project, what allowed the code to build successfully with Fluorine dependency. Junit tests were adapted quite easily. Once that done, the difficulty was to make the functional tests work. It appears the Fluorine controller was unable to dial with netconf testtool versions prior to 1.5.0-SNAPSHOT and the honeynode simulator. Investigations showed in testtool error messages when decoding EXI messages from the controller.

### Meeting of the 07/19/2018

### Update on Coding activity during the last week:

Christophe and Gilles made a proposal for reviewing the implementation and the functests of the portmapping. They made some suggestions on the way we could handle the different use cases for TP naming. This proposal is based on the comments made in previous discussions about the whitepaper. AT&T to read and comment the excel document so that we can have feedback and decide on the implementation we will make in the code applying some corrections.

Doha worked on a first version of renderer Unit tests and reported some issues on Jira. Issues 21 and 22 have been answered. For issues 19 and 20 some corrections have been applied. Commit pending.

The blocking issue with Oxygen has been fixed this week. The behavior of some listener operations/status (WRITE/SUBTREE\_MODIFIED) changed between Nitrogen and Oxygen , what prevented the portmapping from running. https://jira.opendaylight.org/browse/TRNSPRTPCE-18 https://git.opendaylight.org/gerrit/#/c/74125/ https://git.opendaylight.org/gerrit/#/c/73552/ We can now run our code on Oxygen. Some minor non-blocking issues with Netconf and Karaf are still pending. (One is already referenced and opened in JIRA. https://jira.opendaylight.org/projects/NETCONF/issues/NETCONF-534 ) Consequently, most of the Nitrogen code has now been backported and adapted to the master branch in Oxygen. There is a test failing in the new servicehandler version. Investigations are on the way.

#### Integration in Fluorine:

The release manager couldn't attend our TSC feedback last week unfortunately so we sync on Tuesday. The main problem for him is that we lacks some visibility on the time need to solve those issues. Meanwhile, the situation evolve since we managed to solve the oxygen issue and have identified the problem in Fluorine. The discussion will be pursued at the TWS in 2 weeks (no TWS this week and next slot already taken)

For the bump to Fluorine, we got some feedbacks from Robert Varga on Gerrit. https://git.opendaylight.org/gerrit/#/c/73974/4 A new revision of the IETF network models was published in February 2018. However, they are not backward compatible with the ietf-network model revision we used in Openroadm because the models were specified before 2018. The old model support was removed from the Fluorine core at the beginning of the month. Cf https://git.opendaylight.org/gerrit/#/c/73591/

2 solutions are proposed: either we upgrade the openroadm model, or we package ourselves the ietf-network models.

Shweta suggest to contact Gilles Heron, to try finding a solution.

### Meeting of the 07/12/2018

### Update on Coding activity during the last week:

- Servicehandler.
  - Junit tests for ServiceHandler merged. The ServiceHandler UT suite is now complete.
  - Some bugs corrections on SH following those UT and Orange Labs Egypt feedbacks.
- Renderer + OLM
  - o XPDR node deletion management enhancement
    - Case where ports are unidrectional
    - Tests the OCH interface is not already used
    - Alarm suppression not yet covered by the white paper, LOG level set to warning meanwhile
  - OLM Roadm xc power timer increased from 20 to 60s following equipment tests
  - ATT confirms the Openroadm whitepaper specifies 20s and not 60s
  - This should be documented somewhere since we are diverging from the normal behavior. (A comment inside the code to mention this discrepancy would be perfect)
- Topology
  - Topology functests completed and merged but some tests currently fails because of abnormal behaviors in the topology code (extra TP detected and Rdm2Rdm links not automatically deleted)
    - Discussion and bugs corrections ongoing to fix this, a change has been proposed by ATT but is not yet ready.
  - Portmapping / topology alignment tests proposed and merged.
    - Some new tests have been proposed to detect alignment problems between topo and portmapping. This will ease the detection of regression and non-conformance problems in the future.
    - Currently, the TP naming are not aligned and Tests 5 fails.

### Other works:

Orange complemented tests on the PoC platform while equipment from different suppliers were available. This led to various adaptation in the code.

#### Integration in Fluorine:

During last week, several draft patches were proposed by Orange to repair the master branch POM by bumping dependencies to oxygen-SR2 or Fluorine. The build process worked but we are still facing a karaf run-time issue. We got some help from Stephen to bump our project to Fluorine and he reported that none of the corresponding migrations are implemented (yet) in the snapshot, notably the rfc8345 ietf-network migration, so this fails to build. Thus, at 3 weeks before the Fluorine Code Freeze, we are still facing a tricky missing dependency issue. Our conclusion is that the current release process is not well adapted to downstream projects such as transportpec because they rely on too much dependencies. This feedback has been presented to the TSC after the meeting. Minutes in the link below. https://meetings.opendaylight.org/opendaylight-meeting/2018/tsc/opendaylight-meeting-tsc.2018-07-12-16.01.html Some solutions have been proposed to improve the current release process and support to self-managed project. The TSC will bring the discussion to the TWS.

#### Miscellaneous

The sprint backlog has been filled in Jira and presented by Olivier and Ahmed.

### Meeting of the 07/05/2018

## Update on Coding activity during the last week:

Change 73773: Increase OLM timer to turn up power in ROADM nodes

With some equipment, the time needed to set the target-output-power on ROADM connections exceeds 20s. Timer value is changed to 60s. AT&T says that rather than changing the timer to 60s, we should check on the Excel spreadsheet the specifications and get back to the manufacturers to verify why the setting of the target-output-power exceeds 20s. The alternate solution consisting in uploading the full PM list (we don't know the id of the corresponding PM at that time) to retrieve the corresponding PM would lead even longer time for setting up the connection. Thus it could be implemented at a later step (when handling R2.2 which introduces Xpath).

Change 73004: Functional tests for topo init were not merge for different reasons:

- The links are not deleted from the topo if they come down. ( 3Tests 24, 33 and 37 fail). AT&T wrote some code to handle the administrative status of the links rather than deleting them. However AT&T does not recommend to push this code since it would imply to rework the PCE module to handle this correctly.
- AT&T proposed to develop the code so that ROADM to ROADM links are automatically deleted, and to provide a rpc to delete the link from transponders to ROADMs.
- NB: as mentioned by AT&T during the call, using the following command <a href="http://127.0.0.1:8181/restconf/config/ietf-network:network/fnetwork-idf">http://127.0.0.1:8181/restconf/config/ietf-network:network/fnetwork-idf</a> /ietf-network-topology:link/{link-idff} we can delete either ROADM-to-ROADM or XPDR-to-ROADM. However if it can be used as a workaround, we recommend to follow AT&T proposal to provide code for auto deletion of ROADM-ROADM link, and the rpc corresponding to delete ROADM-XPONDER tail (since the create rpc already exist, delete rpc shall exist too)
- Some extra termination points that do not exist are generated in the topology (2 Tests 9 and 17 fail). The code change provided by AT&T solves
  the problem but generate side effects in the PCE. PCE code reworking would take too long time. Can AT&T propose an alternative bug
  correction?
- We are adding some tests on opposite link consistency, on ROADM degrees use by links, and on the consistency between portmapping and topology data (TPs).

AT&T proposed developing the code to solve link deletion. For extra terminations points, a solution needs to be found. The topology/portmapping consistency issue was exposed in a mail. Finding a solution will imply also to consider how we apply naming convention. The point was evoked but not fully addressed during the call. Because of the complexity of this issue, Orange suggested we address this by mail, starting by answering to the question asked on naming convention. All the points from the e-mail do not need to be addressed for the integration in Fluorine, but the topology / portmapping consistency (having the same TP name in both) needs to be solve for the integration, otherwise we will not be able to set the path through the renderer.

Change 73761 & 73770 : bump to ODL parent 3.1.1 and to Yang Tools 2.0.5

Master branch repair process is ongoing (build successful) but we still need to solve some issues at Runtime. Some of the modules do not load.

### Miscellaneous

OLE is currently working on the Junit tests for service reroute.

The capability of OLE to develop JUNIT tests for both the Renderer and the OLM in time was evoked. OLE will look at the code and shall be able to give an answer by next week. However it was mentioned that for JUNIT tests they shall stick to the priority define by Guillaume (not present during the call).

Some cleanup of the draft that will not be used still needs to be done on Gerrit.

AT&T presented during an OpenROADM call the transportPCE project. A demo will be performed during an ONAP event in November.

TransportPCE was also presented during the NGON 2018 event in Nice. Olivier to send the corresponding presentation.

### Meeting of the 06/28/2018

### Update on Coding activity during the last week:

- ServiceHandler has been merged this week with new functional and Unit Tests. Since the new PCE was still based on ServicePath 1.5, the SH
  has been downgraded to SP 1.5, which means that some RPCs will temporarily be no more available. Related functional tests have been
  commented out. The Junit DiversityTest has been put in a separate change not merged because it currently fails and is more related to the PCE.
  Additional JUnit Tests for SH are also expected next week.
- A proposal for Topology functests have been published by Ahmed but some tests are failing because the current topology feature do not delete links/node nor propose an up/down status for them.

Following that, a bug correction has been proposed by Dhruy but it brings other issues. The problem is deeper, more feedback from ATT should follow.

 Since many tests are pending to merge and introduces potential conflicts, there are ongoing talks between changes owner to rationalize the work and allows the migration to honeynode

#### Other works:

Orange Labs Egypt and ATT agreed to directly working/supporting together on JUnit tests for renderer + OLM once the SH Junit tests will be completed. Need for some clean-up: many obsolete drafts and changes need to be closed/deleted by their owner from the Gerrit repo.

#### Integration in Fluorine

The Master branch poms have been repaired but with the new Nexus nomenclature, it is not yet clear how to separate Fluorine from Oxygen Dependencies. Ongoing work to backport nitrogen developments into the master branch shows issues with the stubPCE.

#### Meeting of the 06/21/2018

## Update on Coding activity during the last week:

- · Many changes were merged this week.
  - HoneyNode license modified by AT&T.
  - Some Bug corrections on Portmapping and Topology
  - Common tests function for XML to DataObject conversion
  - o PCE with Unit and functional tests
- Other changes are still on-going reviews, it has been decided to separate the tests currently not working from those changes to ease the merge
  process and the integration of ServiceHandler Unit Tests.
  - ServiceHandler update, some bug corrections (thanks to Doha feedbacks). Difficult to evaluate if it brings regression since old tests are no more working and new tests suite failed.
  - JUNIT tests done for the service Handler and pushed on GERRIT. Review still ongoing. Most of the changes it depends on have been merged, except Servicehandler. New tests have been published.
- It has been decided to close the inventory DB feature since the coming ordm 2.2 coming update will bring many modifications in it.

#### Other works

Orange keeps on complementing tests on the PoC platform while equipment from different suppliers is available.

#### Integration in Fluorine

A patch has been proposed to repair the master branch POM, not reviewed for the moment. There have been many modifications proposed on the various functional tests suite and some parts are not totally working yet. The latest reviews showed that their global architecture will probably need to be rethought partially to avoid files collision and unneeded dependencies. Miscellaneous OLE propose to move the schedule at 4pm. Proposal accepted.

### Meeting of the 06/15/2018

### Update on Coding activity during the last week:

- JUNIT tests done for the service Handler and pushed on GERRIT. However still some warnings to solve, and the code need a clean-up prior we
  merge it.
- Functional tests on Topology have been pushed on GERRIT. At this time, all tests have been done. 4 of them fail for an identified reason:
  persistence of the link in the topology. These tests will remain as they are and Orange will add some comments to explain why they fail. After
  admin-status of the link is managed in the code, tests will be updated to test the status rather that disappearance of the link.
- HoneyNode mock has been merged.

### Other works:

Orange is currently complementing tests on the PoC platform while equipment from different suppliers is available. AT&T asks whether we can test BER measurement associated with the renderer at service activation, to check the time needed to get PM with a consistent value. Orange will make this test to check results are consistent with what AT&T observed. However this will not be prioritized since highest priority is to have the code ready for integration with Fluorine.

## Integration in Fluorine

Yangtools and odl-parent dependencies lead to issues, and Fluorine is not stable. However for the integration in Fluorine we need to make sure we are able to backport our code on the latest stable version of ODL, so that the integration effort in Fluorine (when it will be stable) are minimized. Fluorine dependencies are available on the snapshot. Martial tried to make it work on the master with latest dependencies. ODL still have many build failures, also confirmed by ODL release mailing-list build statuses. This is why we will first go to oxygen.

### Miscellaneous

Orange proposed to move the meeting from Friday to another day so that OLE can join the call. The best time-slot seems to be on Thursday, after the OpenROADM Slot at 4:15 PM European time, 10:15 AM NewYork time.

Dhruv will modify License on previously identified files today so that developments performed on Honey Node can be backported in Fdio project. DDF Developer forum in Amsterdam is before the ONS. Guillaume will propose a topic about OpenROADM and transportPCE in the ONS. AT&T evoked some issues with the code (naming of the logical connection points in the equipment, handling unidirectional interfaces in transponders). These issues have also been identified by Orange. Some modifications have already been backported. Some others (unidirectional interfaces) will be merged soon.

## Meeting of the 06/08/2018

#### Wiki :Howto

Guillaume briefly introduced the procedure he put on the Wiki to explain how contributions to transportPCE shall be made through Git/Gerrit.

### SQL Database used by the Device management :

AT&T will send soon the scripts and codes to build the SQL Database required to activate Inventory Init

#### SuperComputer demonstration:

Creating a new branch for the code needed for SuperComputer demonstration, and keeping ATT-Sandbox as the development branch is the best option. This will allow reducing the size of the last developments push from ATT-SandBox to the current active branch.

#### HonevNode:

ATT agrees on modifying the license to Apache so that the code that was reused from older developments on Testtool, can be reused in HoneyNode and pushed as a contribution to the Fdio project. The code developmed with HoneyNode was debugged and a stable version has been pushed on Gerrit, so that AT&T can:

- · Modify the licenses of the code
- Use the HoneyNode code on his side to check if it can be reused in the scope of the SuperComputer demonstration

Orange to provide the name of the file for which the license needs to be changed.

#### Works of the week

AT&T is currently working on enriching inventory init. AT&T is trying to have transportPCE code into ONAP contributing through an SDN-C subproject. This would allow leveraging some existing component of ONAP (Data Analytics and GUI).

Orange closed the last sprint with the following contributions: Merge of Network Topo & inventory Init, Functional tests on Topo & inventory Init almost finished and to be pushed on Gerrit soon, Honeycomb HoneyNode up & running, with functional tests that were not operational using Testtool backported to HoneyNode and running (with some fails on some tests under investigation for correction)

## Meeting of the 06/01/2018

#### Tpce Wiki:

The evolution of the Wiki have been shortly introduced. Orange ask to AT&T to review the Topology management part, to make corrections if needed and to provide its feedback on the interest of providing this level of information (is it needed, is it the place, is the format relevant...?) Dhruv proposed to work on the PCE and complete it with (if possible) the same format. It could be also another kind of document that could be reworked by Orange to put it on the Wiki.

### SQL Database used by the Device management :

Orange asked AT&T to provide some documentation about the prerequisite to make Device management (Inventory Init) up and running (Settings of the SQL database, including the description of the structure of the database that shall be maintained)

#### SuperComputer demonstration:

AT&T was approached by the university of Dallas, willing to make a demonstration of VM creation/moves on an infrastructure including OpenROADM; in SuperComputer conference (November).

AT&T has proposed to provide a Docker including TransportPCE and some stubs simulating OpenROADM equipment. Right now stubs are based on Testtool, meaning they are not state full.

Orange proposed to use the code developed around Fdio Honeycomb solution to replace Testtool, since actual version allows to write/read CONFIG and OPERATIONAL DataStores in the Honeynode.

## HoneyNode:

This code cannot be published on Fdio Honeycomb project, because of licensing issues (still in current investigation) Code currently on Orange Gitlab, with no possibility to open it to AT&T. So best solution would be to give the right to AT&T to access this code (JAR files with no possibility to modify the code) currently on Gerrit in private DRAFT.