

2021-09-21 TAPI Meeting Notes

Date

21 Sep 2021

Attendees

- [Andrea Mazzini](#)
- [Nigel Davis](#)
- [Karthik Sethuraman](#)
- Arturo Mayoral (TIP OOPT/MUST)
- [Huy Tran](#)
- Ronald Zabaleta
- [Jonathan Sadler](#)
- [Dominique Verchere](#)
- [Xiang YUN](#)

Goals

- Admin
 - Plan for dedicated RIA 1.1 review calls ([ONF TAPI RIA](#))
- Update on TAPI **2.3.1** Pre-release
 - Restructuring of TapiFm – TapiNotification – TapiStreaming relationships
- Presentation of [otcc2021.JS.001_tapi-security.docx](#)
- 2.4 delivery
 - Presentation of [otcc2020.ND.013_Tapi-NotesOn2.4.pptx](#)
 - Loopback [Use case 17e Loopback Provisioning.docx](#)
- Resume of “GNPy/CCAMP – TAPI alignment” activity
 - [otcc2021.AM.001_TAPI-GNPy-extensions.pptx](#)

Agreed Items & Priority

- Below the list of the agreed items and related priority.
- An item is blocking when its resolution is necessary precondition for the delivery.

TAPI 2.1.3 and RIA 1.1

1. OTU(+ODUCn) CEP/CSEP as single point for OTU/OTSiA ConnectivityService provisioning ([solved](#))
2. ENNI/INNI Asymmetric service provisioning for multi-domain scenarios, agree UCs ([solved](#))
3. Alarm / TCA notification ([solved - work ongoing on probable cause list](#))
 - a. Subscription
 - b. Notification contents
 - Probable Causes / Elementary alarms (e.g. ITU-T cZZZ fault causes), including TCA PM Parameters
4. OTS and OMS model ([solved](#))
5. Path Computation Use Cases ([blocking](#))

TAPI 2.3/2.4 and RIA 1.2

1. MEP/MIP model vs. direct inclusion of OAM parameters in the CEP ([solved](#))
 - a. ODU OAM
 - b. Photonic OAM
 - c. TCA provisioning
2. Physical impairments ([not blocking](#))
 - OFC is augmenting TAPI Link, others the AbstractStrand.
 - Type of amplifier, fibre attenuation, etc.
3. Photonic model capability ([not blocking](#))
4. Lifecycle management of ConnectivityService at every layer, necessary to identify UCs ([not blocking](#))
 - Lifecycle management of single ConnectivityService, necessary to identify UCs
5. 3R ([not blocking](#))
6. UNI Client interfaces modelling. DSR/ODU multiplexing over ODU ([not blocking](#))
7. RESTCONF Response codes for use cases ([not blocking](#))
8. TAPI OAS, action points to be assigned ([not blocking](#))
9. Routing Constraints ([not blocking](#))
10. Physical Route ([not blocking](#))

Discussion items

5 m ins	Administrative	A ll	<p>Review of TR-547 1.1: Tentative scheduling of 2 hours calls for Sept 27, 29, 30, Oct. 1</p> <ul style="list-style-type: none"> Invited Ramon, Nigel, Ronald, Pedro, Arturo. Please others interested to contact Andrea. <p>28 Sep 2021 TAPI weekly call</p> <p>Preliminary agenda:</p> <ul style="list-style-type: none"> Continue the review of TAPI 2.3.1 pre-release (decoupling FM from Notification and Streaming) TAPI 2.4 plan: otcc2020.ND.013_Tapi-NotesOn2.4.pptx contribution Loopback Use Case Use case 17e Loopback Provisioning.docx <i>AccessPort/connectorPin</i> is read-only, check whether the object keys of <i>ConnectorPinAddress</i> are necessary
4 0 m ins	Presentation of otcc2021.JS.001_tapi-security.docx	J o n a t h a n S a d l e r	<p>Jonathan Sadler presents otcc2021.JS.001_tapi-security.docx</p> <ul style="list-style-type: none"> OIF 2022 Interop shall include security aspects. Previous OIF interops did not include security aspects. <i>The document addresses three issues:</i> <ul style="list-style-type: none"> <i>The cipher suites, identity methods used for TLS connections,</i> <i>The cipher suites, identity methods used for SSH connections, and</i> <i>The authorization framework used for operations presented.</i> TLS connection for TAPI exchanges, how to secure it. The main reference specification is: <ul style="list-style-type: none"> "Common Criteria for Information Technology Security Evaluation: collaborative Protection Profile for Network Devices version, 2.2e." Mar <https://www.commoncriteriaportal.org/files/ppfiles/CPP_ND_V2.2E.pdf> Some discussion on the (long) list of <i>crypto suites</i>, clarified that: <ul style="list-style-type: none"> Older ones are most likely to be implemented but also most likely to have been subject of attacks during time <ul style="list-style-type: none"> Obsolescence could be a problem. Newer ones may have less implementations but are much more stronger. The server provides a list of supported suites and the Client will pick one to interoperate. <ul style="list-style-type: none"> The success ratio depends on how many suites, authentication types, etc. are supported. After certification exchange it comes the authorization exchange. TLS, SSH are open source by openTLS, openSSH. More recent versions have more combinations. RFC8341 - Network Configuration Access Control Model (NACM), tree/subtree authorizations for who. Arturo, we need to find a selection to be specified in the RIA. Not so many and not too few. Compromise between interoperability and implementer Karthik Sethuraman this depends on what is really available. <ul style="list-style-type: none"> Jonathan Sadler implementations which are 2/3 years old are less secure, a compromise is needed. Action to all, it is important to continue the analysis, starting to add something to the RIA draft.

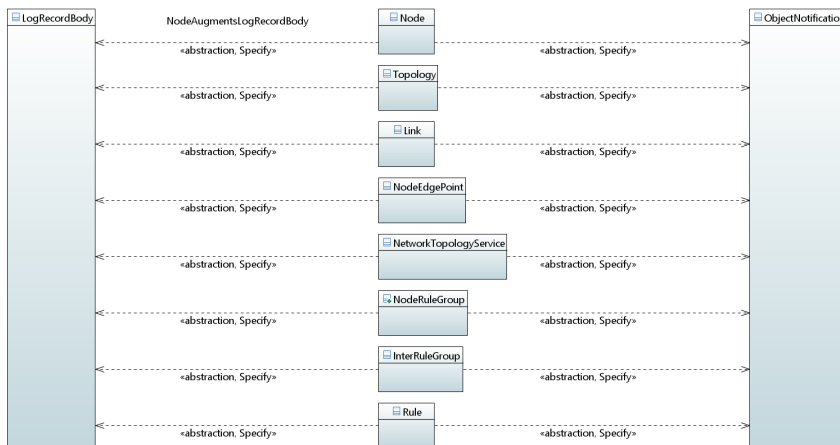
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Andrea Mazzini shows the issues found trying to implement the solution proposed last week.

After detailed discussion, agreed to follow the "TapiNotification approach", i.e. moving also TapiStreaming at the core of the model.

- All technology agnostic modules will import both TapiNotification and TapiStreaming.
- TapiStreaming will be disaggregated: Each technology agnostic module will specify its own augments to Streaming (and Notification).
 - E.g. TapiTopology will include a diagram with Node, NEP, Link, etc. augmenting TapiStreaming log (and Object Notification), see below:



Post meeting note: the OAS script becomes:

```
[0]='tapi-common'  
[1]='tapi-common tapi-notification'  
[2]='tapi-common tapi-streaming'  
[3]='tapi-common tapi-notification tapi-streaming tapi-topology'  
[4]='tapi-common tapi-notification tapi-streaming tapi-topology tapi-equipment'  
[5]='tapi-common tapi-notification tapi-streaming tapi-topology tapi-virtual-network'  
[6]='tapi-common tapi-notification tapi-streaming tapi-topology tapi-path-computation'  
[7]='tapi-common tapi-notification tapi-streaming tapi-topology tapi-path-computation tapi-connectivity'  
[8]='tapi-common tapi-notification tapi-streaming tapi-topology tapi-path-computation tapi-connectivity tapi-  
[9]='tapi-common tapi-notification tapi-streaming tapi-fm'  
[10]='tapi-common tapi-notification tapi-streaming tapi-topology tapi-path-computation tapi-connectivity tapi-  
[11]='tapi-common tapi-notification tapi-streaming tapi-topology tapi-path-computation tapi-connectivity tapi-  
[12]='tapi-common tapi-notification tapi-streaming tapi-topology tapi-path-computation tapi-connectivity tapi-  
[13]='tapi-common tapi-notification tapi-streaming tapi-topology tapi-path-computation tapi-connectivity tapi-
```

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- 2.4 delivery
 - Presentation of otcc2020.ND.013 - Tapi-NotesOn2.4.pptx

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- Nigel Davis briefly presents [otcc2020.ND.013_Tapi-NotesOn2.4.pptx](#) contribution, where most of the items are already solved.
- We need to consider the *multiple context* feature, one possible application being *slicing*.