

# Use Case Realization Call: October 30, 2019

## Date

30 Oct 2019

## Attendees

- Benjamin Cheung
- Vimal Begwani
- Oskar Malm
- David Smith
- Michela Bevilacqua
- Prabhu Balan
- Sandeep Shah
- Shankaranarayanan Puzhavakath Narayanan
- yaoguang wang
- Zu Qiang (Ericsson)
- Fei Zhang
- Joanne Liu Rudel
- N.K. Shankaranarayanan
- Dongho Kim
- Ferri Tafreshi
- Lei Wang
- Fernando Oliveira
- Melanie Sater
- Lukasz Rajewski

## DISCUSSION ITEMS LOG

Ct gry	Item	Who	Notes
Plfrm	<b>PLATFORM TOPICS:</b> Controller to NF Association	Benjamin Cheung	R5/R6 Topic  See Slides Nov 6, 2018. Development of Controller to NF assignment association S/W.  CDS, VF-C, APP-C, SDN-R, SDN-C; will the CCSDK "merging" of controllers happen in R6?  <a href="#">USE CASE REALIZATION MEETING (Notes 2018-11-6) Ctrl-NF</a>
Plfrm	<b>PLATFORM TOPICS:</b> Data Persistency, RunTime DB	N.K. Shankara narayanan  Joanne Liu Rudel  Benjamin Cheung	STATUS: Work for RunTime DB completed, not merged in R4  Dan Timoney moved to R5, one Jira for <b>RunTime DB</b> . One issue about merging.  ONAP code added can take a test ONAP deployment to have the ConfigDB work.  <a href="#">USE CASE REALIZATION MEETING (Notes 2019-01-30) U/C Cross-Interaction, Persistency</a>  <a href="#">CONFIGURATION PERSISTENCE SERVICE R6</a>
Plfrm	<b>PLATFORM TOPICS:</b> Controller LCM API Evolution	Oskar Malm	<a href="https://wiki.onap.org/download/attachments/50202249/2019-04-09%20ONAP_LCM_API_Evolution_El_Alto.pptx?api=v2">https://wiki.onap.org/download/attachments/50202249/2019-04-09%20ONAP_LCM_API_Evolution_El_Alto.pptx?api=v2</a>  Goals (Architecture Evolution) <ul style="list-style-type: none"><li>• Target is common LCM API in CCSDK usable by different controller personas to simplify for both clients and controller implementations</li><li>• Support PNPs for applicable LCM operations in a consistent way</li><li>• Enable use of CDS blueprint processor to customize behavior of LCM operations in the 'self-service' category<ul style="list-style-type: none"><li>◦ In ONAP R4, CDS can be used for pre/post-instantiation configuration. Generic and model-driven design should allow CDS usage to be extended for additional operations and use cases.</li></ul></li><li>• Evolution steps that preserve backwards compatibility for clients</li></ul> Present at the Arch S/C Apr 9 (Tue) second presentation.

Use Cases	<b>USE CASE/5G:</b> RAN (ORAN-3GPP) Standards harmonization with ONAP	Marge Hillis Vimal Begwani Fred Feisullin	<ul style="list-style-type: none"> <li>Orchestration at the Edge.</li> <li>A1/O1/E2 communications. Edge to ENBs, Telemetry.</li> <li>E2 will not have this info. O1 is I/F for PM counts. Not a management I/F.</li> <li>WG3 (ORAN) is defining this.</li> <li>ONAP w/ O1. Changes w/ O1 interface.</li> <li>How to satisfy A1/O1 and in what time-frame.</li> <li>U/C ORAN - ONAP harmonization. 3GPP ORAN ONAP.</li> <li>Starting a new U/C in 5G. Marge, Vimal, Fred Feisullin</li> <li>Edge inventory &amp; topology. Transport BH consideration w/ real-time near-RT aspects</li> <li>Akranio. MEC. Edge automation (Ramki).</li> </ul> <p>Use Case WIKI: <a href="#">MOBILITY STANDARDS HARMONIZATION WITH ONAP</a></p>
Use Cases	<b>USE CASE/5G:</b> Licensing Management	Timo Perala Samuli Kuusela	<p>New U/C added to the 5G Use Cases for Licensing Management</p> <p>Use case Wiki: <a href="#">LICENSING MANAGEMENT</a></p> <p>(Oct 8 2019) Arch Samuli presented on Licensing Management. Object development. Modeling S/C.</p> <p>Modeling work: <a href="#">ONAP R6 Modeling High Level Requirements</a></p>
Use Cases	<b>USE CASE/5G:</b> OOF / SON / PCI	N.K. Shankara narayanan	<p>PoC for December 2019?</p> <p>SDN-R south-bound NetConf I/F w/ model</p> <p>and also integration with Runtime DB work.</p>
Use Cases	<b>USE CASES:</b> BBS U/C Evolution	David Perez Caparros Tim Carey Chaker Al-Hakim	<p>BBS Evolution - Slide set linked in R6 proposed U/C. List of proposals &amp; functional requirements.</p> <ol style="list-style-type: none"> <li>Change Service - want to use ONAP platform.</li> <li>Full Closed Loop for Fault Management - CLAMP.</li> <li>Service Update API (SO) - will be developed</li> </ol> <p><a href="https://wiki.onap.org/download/attachments/60887504/BBS_R5_v1.pptx?version=1&amp;modificationDate=1554180715000&amp;api=v2">https://wiki.onap.org/download/attachments/60887504/BBS_R5_v1.pptx?version=1&amp;modificationDate=1554180715000&amp;api=v2</a></p>
Use Cases	<b>USE CASES/5G:</b> PM Dictionary/FM MD GUI	Marge Hillis	FM META DATA & PM DICTIONARY in R5
Use Cases	<b>USE CASES/5G:</b> PNF S/W Upgrade	Zu Qiang (Ericsson) yaoguang wang	PNF software upgrade in R6 Frankfurt
Use Cases	<b>USE CASES/5G:</b> Preonboarding /Onboarding	Benjamin Cheung Zu Qiang (Ericsson) Michela Bevilacqua	PNF PREONBOARDING / ONBOARDING in R5
Use Cases	<b>USE CASES:</b> IoT Service Creation	Atul Purohit	<p>IoT Create Services on 5G</p> <p><a href="#">5G Use Cases in R6 Frankfurt</a></p> <p>June 19, 2019</p>

User Cases	<b>USE CASES:</b> Modeling gNB/5G RAN	Thinh Nguyeng Benjamin Cheung Melanie Sater Tracy Van Brakle Martin Skorupski	<p>Align, harmonize, reconcile various information models to ONAP model: Expand &amp; verify model and harmonize with the ONAP internal information &amp; data model: <b>ETSI SOL001 ... 007</b> with ONAP internal Model PNFD modeling (Model S/C) 5G Model (<b>3GPP</b>, RAN) <b>ORAN</b> (WGs, RAN) <b>Open ROADM</b> (reconfig optical add/drop multiplexer, Optical) <b>ONF</b> (Optical) <b>ISOMII</b> (Optical) <b>OTCC</b> (Optical transport config &amp; control)</p> <ul style="list-style-type: none"> <li>- Use Cases that need transport models need some model consistency.</li> <li>- Try a Use Case with extended ONAP model &amp; real equipment.</li> </ul> <p>ORAN Model PlugFest (Dec 2019)</p>
User Cases	<b>USE CASES:</b> 5G NRM (Network Resource Model) Configuration	yaoguang wang	<p>Presented at the 2019 June LFN DDF, titled as '<b>5G Provisioning management service to NRM</b>' (Oct 9 2019) Presented at CDS team and discussed with Yuriy and Seshu; presented at Resource Modeling S/C. Slides will be updated and re-presented. <b>5G Network Resource Model (NRM) Configuration in R6 Frankfurt</b></p>
Arch	Architecture S/C PNF POB/OB Flow	Benjamin Cheung	<p>Arch S/C Information Flows: <b>Draft ONAP Information Flows</b> New Information flow for Preonboarding/Onboarding xNF packages/resources. <b>ARCHCOM: InfoFlow - Onboard Resource into SDC Flow</b></p>
TSC	TSC: PoC Definition	Benjamin Cheung Alla Goldner	POC definition
TSC	TSC/USE CASES: Test Automation Progress	Benjamin Cheung Alla Goldner	<p>Use Case Test Automation Action Items: Use case subcommittee to reach the Dublin use case owner to provide the following information. what's the current percentage of testing automation regarding your use case and functional requirements; what will be the plan to be 100% and constraints (resources availability etc.)</p>
	R6 Frankfurt / M0		<p><b>Use Case Tracking Template</b> Need the U/C teams to fill out the Dev. Impacts. More Generalized Use Case Template (discussed w/ Model team): <b>Use Case Tracking Template</b> and <b>Use Case Template</b></p>
	VID: Service Models Browser Orchestration	James Forsyth user-063b3	<p><b>VID: Service Models browser - display orchestration type (macro / a`la carte) use-case.</b> This use-case requires us to extend the AAI data-model, with an additional field, related to Service Model. This field will be used later on to indicate in VID the Service Model orchestration type.</p> <p>A&amp;AI Epic 2594  <a href="#">AAI-2594</a> - AAI: Store orchestration-type parameter as part of model-ver:object <span style="border: 1px solid #ccc; padding: 2px;">CLOSED</span></p>

#### Frankfurt Release Requirements

## KEY PRESENTATIONS & OVERVIEWS & RECORDINGS

DATE	TOPIC	PRESENTER	DESCRIPTION

Apr 10, 2019	Controller LCM API Evolution	Oskar Malm	<ul style="list-style-type: none"> <li>Target is common LCM API in CCSDK usable by different controller personas to simplify for both clients and controller implementations</li> <li>Support PNFs for applicable LCM operations in a consistent way</li> <li>Enable use of CDS blueprint processor to customize behavior of LCM operations in the 'self-service' category <ul style="list-style-type: none"> <li>In ONAP R4, CDS can be used for pre/post-instantiation configuration. Generic and model-driven design should allow CDS usage to be extended for additional operations and use cases.</li> </ul> </li> <li>Evolution steps that preserve backwards compatibility for clients</li> </ul> <p><a href="https://wiki.onap.org/download/attachments/50202249/2019-04-09%20ONAP_LCM_API_Evolution_El_Alto.pptx?api=v2">https://wiki.onap.org/download/attachments/50202249/2019-04-09%20ONAP_LCM_API_Evolution_El_Alto.pptx?api=v2</a></p>
May 1, 2019	A&AI GraphGraph Visualizer	Pavel Paroulek	<p>Visualizer for A&amp;AI Model Layout</p> <p><a href="#">Use Case Realization Call: May 1, 2019</a></p>
May 8, 2019	A&AI Model Browser, Sparky	James Forsyth	<p>A&amp;AI developer Model Browser to navigate and viewing attributes, object types &amp; edge view</p> <p>Recording &amp; Slides: <a href="#">Use Case Realization Call: May 8, 2019</a></p>
May 15, 2019	A&AI Run Time Browser (Sparky)	Giulio Graziani	<p>A&amp;AI Run-Time Browser</p>
May 22, 2019	Edge Automation Overview & Discussion	ramki krishnan	<p>Central &amp; Distributed Edge ONAP configuration.</p> <p>Topics include: Onboarding, Instantiation, Edge Orchestration, A&amp;AI, Architecture, Work-flows, Multi-Tenancy</p> <p><a href="#">Use Case Realization Call: May 22, 2019</a></p>
May 29, 2019	Modeling S/C , Use Case Project Teams, Architecture S/C Way of Working	Benjamin Cheung	<p>Model S/C (Sub committee) contributions page:</p> <p><a href="#">Modeling sub-committee Contributions</a></p> <p><a href="https://wiki.onap.org/display/DW/Proposed+ONAP+Release+Process+Updates+for+Information+and+Data+Modeling">https://wiki.onap.org/display/DW/Proposed+ONAP+Release+Process+Updates+for+Information+and+Data+Modeling</a></p>
Jun 5, 2019	Use Case slides for Dev. Forum	Benjamin Cheung	<p><a href="#">Use Case Realization Call: June 5, 2019</a></p>
July 10, 2019	R6: PNF Software Upgrade Overview & Discussion	Zu Qiang (Ericsson) Ulas Kozak yaoguang wang	<p>ONAP Read the Docs/R4 Announcements</p> <p>WIKI: <a href="#">PNF software upgrade in R6 Frankfurt</a> Overview &amp; Presentation</p>
July 24, 2019	R6: OOF/SON PCI Use Case Demo, Overview & Discussion	N.K. Shankaranarayanan	<p>OOF / PCI / SON Use Case Demo</p>
Aug 7, 2019	5G NRM (Network Resource Model) Configuration U/C Overview	yaoguang wang	<p>5G NRM (Network Resource Model) Configuration U/C Overview &amp; Presentation</p>
Aug 14, 2019	ORAN Standards Harmonization U/C Overview	Marge Hillis Vimal Begwani	<p>ORAN Standards Harmonization U/C Overview &amp; Presentation</p>
Aug 21, 2019	Modeling Sub-Committee guidelines & Use Case Interactions	Andy Mayer Hui Deng	<p>Modeling S/C Process Wiki: <a href="#">Proposed ONAP Release Process Updates for Information and Data Modeling</a></p> <p><a href="#">Use Case Tracking Template</a> and <a href="#">Use Case Template</a></p> <p>R6 Modeling High Level Requirements Planning Page: <a href="#">ONAP R6 Modeling High Level Requirements</a></p>
Sept 4, 2019	Licensing Management Overview	Timo Perala Samuli Kuusela	<p>Introduction of Licensing Management in R6</p>
Sept 11, 2019	SDC & R6 Use Case Impacts Discussion	Ofir Sonsino	<p>Discussion with SDC PTL Ofir w/ the Use Case Teams and SDC commitments. See the summary Table for SDC impacting Use Cases.</p>
18 Sep 2019	VID & R6 U/C Discuss Preparation for Technical Conference Antwerp	Ittay Stern Use Case Teams	<p>Discussion with VID PTL (Ittay Stern) for R6 Use Case Impacts discussion and commitments for VID impacting Use Cases</p> <p>Preparing slides for Use Cases at the Technical Conference Antwerp (for 5G/PNF use cases)</p>
25 Sep 2019	A&AI & R6 Use Case Impacts Discussion	James Forsyth	<p>Discussion with A&amp;AI PTL (Jimmy Forsyth) and Chandra Cinthala for R6 A&amp;AI Use Case Impacts discussion and commitments.</p> <p><a href="#">Use Case Realization Call: September 25, 2019</a></p>
02 Oct 2019	DCAE & R6 Use Case Impacts Discussion	Vijay Venkatesh Kumar	<p>Discussion with DCAE PTL (Vijay Kumar) for R6 Use Case Impacts discussion and commitments for DCAE impacting Use Cases</p>

09 Oct 2019	M1 U/C discussion	Use Case Teams	R6 M1 Deadline (Oct 10 2019)  M1 Checklist: <a href="#">Deliverables for Planning Milestone Checklist Template</a>  READ THE DOCS: <a href="http://onap.readthedocs.io/en/latest/guides/onap-developer/developing/index.html">http://onap.readthedocs.io/en/latest/guides/onap-developer/developing/index.html</a> > USER GUIDES > Verified Use Cases  and discussion with A&AI ( <a href="#">James Forsyth</a> ) continuing discussion from Sept 25.  Network Slicing has two proposals in R6 ( <a href="#">LIN MENG</a> CMCC and <a href="#">Swaminathan Seetharaman</a> ). Need to align the two proposals and present at Use Case S/C meeting (Alla G.) and TSC and Architecture next week Oct 14.
16 Oct 2019	PoC Planning & Discussion	Tracy Van Brakle	Combination Plugfest & PoC 1st week of December bringing together subset of ONAP modules as SMO (svc mgmt orchestration) layer w/ other artifacts from ORAN S/W (LF). LF will publicize. Planned June 2020.  Co-Demo discussion Nokia & Ericsson: <a href="#">Plug Fest Planning Discussion Oct 28, 2019</a>
23 Oct 2019	RunTime Config DB	Benjamin Cheung  Joanne Liu Rudel  Sandeep Shah	Discussion of the RunTime DB Use Case in R6 Frankfurt which introduces a Common Service Data Layer for a data lake to store configuration and operational parameters.  Component & Flows:  <a href="#">ARC RunTime DB Component Description - R6 Frankfurt</a>  <a href="#">ARCCOM: InfoFlow - RunTime Config DB Information Flow</a>  <a href="#">CONFIGURATION PERSISTENCE SERVICE R6</a>
30 Oct 2019	OOF & R6 Use Case Impacts Discussion	Shankar PN	Discussion with OOF PTL ( <a href="#">Shankaranarayanan Puzhavakath Narayanan</a> ) for R6 Use Case Impacts discussion and technical details for OOF impacting Use Cases
06 Nov 2019	SO & R6 Use Case Impacts Discussion	Seshu Kumar Mudiganti	Discussion with SO PTL (Seshu Kumar) for R6 Use Case Impacts discussion and commitments.
13 Nov 2019	Plugfest Planning & Discussion	Tracy Van Brakle	Sync up on the Demo & PlugFest  Thursday Dec 5, 2019 Rutgers OWL Lab (NJ)
20 Nov 2019	Network Slicing	Swaminathan Seetharaman  LIN MENG  Shankaranarayana n Puzhavakath Narayanan	CMCC-Huawei-Tencent & Wipro-ATT-Amdocs joint Network Slicing proposal
27 Nov 2019	No Meeting	No Meeting	
x, 2019	Discussion of Use Case Template for R7	Andy Mayer  Scott Blandford	Filling out, describing and creating the Wiki for a Use Case  <a href="#">Use Case Tracking Template</a> and <a href="#">Use Case Template</a>  <a href="#">Proposed Functional Template for Use Cases</a>
x, 2019	Release Manager Discussion	David McBride	Discussion with David McBride of the Linux Foundation, the R6 Release Manager regarding practices, wiki page updates, Jira dashboard and what is a use case?  <a href="#">Release Planning: Frankfurt</a>  <a href="#">Frankfurt Release Requirements</a>

## OOF USE CASE IMPACTS FOR R6

Frankfurt Release Requirements

# Frankfurt impacts - Summary

- CCVPN:E-LINE Service over OTN NNI
  - OTN path between two domains
- Component Upgrades to new Policy Lifecycle API
  - Moving to new Policy APIs
- E2E Network Slicing
  - *More details in subsequent slides*
- 5G / OOF SON Enhancement
  - Runtime DB impacts, AI/ML based SON algorithm (stretch)
- ETSI Alignment Support (requirements not known yet)
- MDONS (requirements not known yet)

THE LINUX FOUNDATION



PNF / Preonboarding Onboarding	<a href="#">Wiki Page: PNF/VNF PREONBOARDING / ONBOARDING in R6 Frankfurt</a> <b>SUMMARY:</b> No Impact
PNF / Plug and Play	<a href="#">Wiki Page: PNF PLUG and PLAY in R6 Frankfurt</a> <b>SUMMARY:</b> No Impact
PNF / Software Upgrade	<a href="#">Wiki Page: PNF software upgrade in R6 Frankfurt</a> <b>SUMMARY:</b> No Impact
PNF / Configuration with NetConf	<a href="#">Wiki Page: Configuration with NETCONF in Frankfurt/R6</a> <b>SUMMARY:</b> No Impact
5G / 5G Service Modeling	<a href="#">Wiki Page: 5G RAN SERVICE MODELING &amp; DEFINITION in R6 Frankfurt</a> <b>SUMMARY:</b> No Impact, Information Modeling work only in R6
5G / Bulk PM	<a href="#">Wiki Page: 5G Bulk PM in Frankfurt/R6</a> <b>SUMMARY:</b> No Impact.
5G / PM Dictionary	<a href="#">Wiki Page: FM META DATA &amp; PM DICTIONARY in R6 Frankfurt</a> <b>SUMMARY:</b> No Impact.
5G / 5G FM Meta Data	<a href="#">Wiki Page: FM META DATA &amp; PM DICTIONARY in R6 Frankfurt</a> <b>SUMMARY:</b> No Impact

5G / OOF SON (PCI)	<p><b>Wiki Page:</b> <a href="#">OOF (SON) in R5 El Alto, OOF (SON) in R6 Frankfurt</a></p> <p>Main objectives want south-bound interface from SDN-R to network &amp; ORAN.</p> <p>E#1 <b>MODEL ALIGNMENT</b> - Harmonize ORAN &amp; 3GPP. I/F from ORAN to ONAP. O1 and A1 interface. O1 NetConf / Yang I/F. Continuing that work. For O1, reuse work done in R4. in R6 ready to continue work w/ Yang model - want to align with ORAN Yang model. Focused on what models are available and which to use. model of 5G RAN network. Focused on some aspects. Every 5G cell has PCI value &amp; nbr relations to 5G cell, CellID, nbr relations, PCI values. Done in a scripted manner Yang model &gt; use it for SDNR SthBnd I/F. Schema used in RTCfgDB. Focused on PCI &amp; Neighbor relations. Use RAN sim to generate config changes for the SON U/C.</p> <p>E#2: <b>NOTIFICATIONS</b> - Config changes. Info from RAN &gt; SON. Netconf notif &amp; VES msgs. Input from RAN to SON project U/C using VES. VES from FM/PM KPIs. Add VES Notif from RAN simulator via VES. Reuse with RTCfgDB work; consumed by mS. Input from RAN to SON.</p> <p>E#3: <b>POLICY</b> - When control loop &gt; policy. Control Loop Coordination (CLC) if 2x Control Loops. PCI &amp; cANR. Use CLC to coordinate between 2x control loop commands.</p> <p>E#4: <b>OPTIMIZATION ENHANCEMENTS</b> - mS &amp; OOF. Can optimizations can be enhanced. SON functions ++. What's feasible on basis, new Jira items. Enhancements of Algorithms.</p> <p>Q: <i>How far along are we to RAN management?</i> A: <a href="#">Martin Skorupski</a> PTL of O1 I/F in ORAN. Take 3GPP models Martin has script Yang model "cleanup". Working with ORAN to clean up model. Take part of model &gt; RTCfgDB. Martin has some Yang files clean up work to be done.</p> <p><b>Use Case Spreadsheet:</b> Indicates Impact</p> <p><b>Release Requirements Page:</b> Indicates Change (<a href="#">Frankfurt Release Requirements</a>)</p> <p><b>SUMMARY:</b> Not to much S/W OOF changes. If enhancements affects OOF Swami will notify Shankar. Algorithmic enhancements mentioned in Jira.</p> <p> <a href="#">OPTFRA-616</a> - OOF SON use case impacts for Frankfurt release <span style="border: 1px solid black; padding: 2px;">CLOSED</span></p>
5G / E2E Network Slicing	<p><b>Wiki Page:</b> <a href="#">NETWORK SLICING PoC in R6 Frankfurt (Obsolete)</a></p> <p><b>Use Case Spreadsheet:</b> Indicates Impact</p> <p><b>Release Requirements Page:</b> Indicates Change (<a href="#">Frankfurt Release Requirements</a>)</p> <p>Presentation made on ARch S/C call 29 Oct 2019</p> <p><b>SUMMARY:</b> (N-</p>
5G / RAN ORAN 3GPP Standards Harmonization	<p><b>Wiki Page:</b> <a href="#">MOBILITY STANDARDS HARMONIZATION WITH ONAP</a></p> <p>Focus on Fault mgmt Performance. O1 for ORAN/ONAP alignment.</p> <p><b>SUMMARY:</b> -</p>
5G / Runtime Config DB	<p><b>Wiki Page:</b> <a href="#">5G CONFIGURATION (RunTime DB)</a></p> <p>VES CMNotify used by RTCfgDB also used by SON U/C.</p> <p>Team Meetings: Friday 9AM (EST USA) <a href="https://zoom.us/j/230322363">https://zoom.us/j/230322363</a></p> <p><b>SUMMARY:</b> -</p>
5G / NRM CM w/ RESTful HTTPS	<p><b>Wiki Page:</b> <a href="#">5G Network Resource Model (NRM) Configuration in R6 Frankfurt</a></p> <p><b>SUMMARY:</b> No Impact ?</p>
5G / Licensing Management	<p><b>Wiki Page:</b> <a href="#">LICENSING MANAGEMENT</a></p> <p><b>SUMMARY:</b> No Impact, Modeling &amp; architecture work only for R6.</p>
SERVICE RESOLVER	<p><b>Wiki Page:</b> <a href="#">Service Resolver</a></p> <p><b>SUMMARY:</b> No Impact ? (Wiki lists nothing) ??</p>

<b>SCALING</b>	<a href="#">Wiki Page: Scaling Use Case (Frankfurt)</a>  <b>SUMMARY:</b> -
<b>Mobile Service Chaining &amp; Service Selection</b>	<a href="#">Wiki Page: MOBILE SERVICE CHAINING</a>  <b>SUMMARY:</b> -
<b>BBS</b>	<a href="#">Wiki Page:</a> (-  <b>SUMMARY:</b> No impact
<b>CCVPN</b>	<a href="#">Wiki Page: CCVPN Use Case in Frankfurt Release</a>  <a href="#">Release Requirements Page:</a> Indicates Change ( <a href="#">Frankfurt Release Requirements</a> )  <b>SUMMARY:</b> -
<b>Control Loop</b>	<a href="#">Wiki Page: Control Loop Sub Committee Frankfurt Release Planning</a> Policy has updated lifecycle API, dependent projects have updated APIs.  <b>SUMMARY:</b> -
<b>Multi Domain Optical Service L0/L1 Orchestration</b>	<a href="#">Wiki Page: Multi-domain Optical Network Services</a> -  <b>SUMMARY:</b> Needs Impact assessment.
<b>CHANGE MANAGEMENT</b>	<a href="#">Wiki Page: Change Management Frankfurt Extensions</a> <a href="#">Use Case Spreadsheet:</a> Indicates Impact Lukasz Rajewski - OOF impact  <b>SUMMARY:</b> Needs Investigation.
<b>HPA</b>	<a href="#">Wiki Page: Continuation of HPA</a> <a href="#">Use Case Spreadsheet:</a> Indicates Impact <a href="#">Release Requirements Page:</a> Indicates Test Only ( <a href="#">Frankfurt Release Requirements</a> )  <b>SUMMARY:</b> Needs investigation.
<b>RUN TIME SECURITY</b>	<a href="#">Wiki Page: Run time Security using ISTIO - as a POC</a>  <b>SUMMARY:</b> -
<b>K8S Based Cloud Region Support</b>	<a href="#">Wiki Page: K8S based Cloud region support (Continue from R4)</a> -  <b>SUMMARY:</b> -
<b>DAaaS</b>	<a href="#">Wiki Page: Distributed Analytics as a Service (Continuation from R4)</a> <a href="#">Use Case Spreadsheet:</a> Indicates Impact  <b>SUMMARY:</b> Needs Investigation
<b>3rd Party Operational Domain Manager</b>	<a href="#">Wiki Page: Third-party Operational Domain Manager</a>  <b>SUMMARY:</b> -

## SUPPORTING DOCUMENTATION

Document	File
OOF R6 Impacts Slide set  Presented by:  Shankaranarayanan Puzhavakath Narayanan	  FrankfurtOOFimpacts.pdf
R6 Use Case Analysis & Spreadsheet	  R6Frankfurt-Use...Sept2019v4.xlsx
Placement selection solver	This describes how Placement selection solver works: <a href="https://wiki.onap.org/pages/viewpage.action?pageId=16005528">https://wiki.onap.org/pages/viewpage.action?pageId=16005528</a>
Selection Optimization Guide	OOF-HAS Homing Specification Guide  <a href="https://docs.onap.org/en/elalto/submodules/optf/has.git/docs/sections/homingspecification.html">https://docs.onap.org/en/elalto/submodules/optf/has.git/docs/sections/homingspecification.html</a>

## RECORDING

Recording	FILE
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Zoom Video & Audio  
(MP4)



zoom\_0.mp4

Audio Only (M4A)



audio\_only.m4a

Playback (M3U)



playback.m3u

Chat (Txt)



chat.txt



meeting\_saved\_chat.txt