

# LOG Meeting Minutes 2019-02-05

Meeting at 1100 EST Tue - <https://zoom.us/j/519971638>

regular zoom has error "meeting in progress" - use my zoom for today <https://zoom.us/j/7939937123>

<https://lists.onap.org/g/onap-discuss/topics>

<http://onap-integration.eastus.cloudapp.azure.com:3000/group/onap-integration>

<https://jira.onap.org/secure/RapidBoard.jspa?rapidView=143&view=planning.nodetail&epics=visible>

## Agenda

### Attendees

Issues with the LF zoom meet for some delegates - may be due to the recent upgrade

[Luke Parker](#)

[Spondon Dey](#)

[Cheuk Yiu Horace Ip](#)

[Michael O'Brien](#)

[Prudence Au](#)

[Dave Williamson](#)

[Sanjay Agraharam](#)

[Lorraine Welch](#)

### Items

- Plan for
  - current implementation
  - Future spec for el-alto for VNFs below
- this week...
  - logging work
    - Dev environment back up - merging existing library - using vid-app-common as a template for usage of org.onap.portal.sdk
      - <epsdk.version>2.4.0</epsdk.version>
    - prepping for splitting repos - 1 per component - will need 8+
    - working with dmaap on charts and filebeat
    - pylog issues for vfc are transient LF issues - posting response (with multicloud)
    - release notes
    - scorecard for S3P
  - dcaegen2 work in ✓ [DCAEGEN2-1166](#) - PM Mapper Logging compliance for current codebase CLOSED under <https://gerrit.it.onap.org/r/#/c/77910/>
  - questions on logging format onap-discuss including hv-ves I need to address <https://lists.onap.org/g/onap-discuss/message/14997?p=,,20,0,0,0::Created,,log.20,2,20,29162034>
    - Discussion on VNF logs (CLAMP) @Sanjay - with Alok Gupta
    - vnf behaviors on top of vnf events
    - dmaap TCA like events - look into capturing these
    - ?add our own log tracing when VNFs react to events - another tracing EPIC we should look at
      - both for VES and non-VES format
      - There is a gap in tracing VNF behaviour - via 5G RAN -
      - cloud infrastructure logs - vm, k8s and cloud service logs (beyond the vm level) - CNI cloud-native plugins example
      - need to think more about combining the logs - at the same time as we currently just capture them.
      - Provide log requirements to VNF onboarding team.
      - [Spondon Dey](#) - feeding in to CL, policy - scaling behaviour - onap to drive more
- infrastructure work
  - Helm ownership -
  - CI/CD - going with Orange MQ robot for oom merges
  - Perf and mostly crashloop avoidance
  - Deploy changes for RHEL7.6
  - Deploy order work
  - ARM A1 testing of new containers from dockerhub on AWS
    - 80g/vm images - reducing footprint, standard alpine java image, ARM/i64 compat
  - Nodeports for dmaap

- Datalake (now part of DCAE) does not yet affect us but it will -
- ONS April conference prep work
- The rest of our backlog is still in progress - M2 is coming up on the 14th
- last week....
- get committed resources for the next 2 months M2 to RC0 - so we can state what is in and out of the Dublin release  
9 weeks to april 4th
  - M2 - functionality freeze - 21 Feb
  - M4 - April 4th
  - I have taken the liberty of adding some names - feel free to add your availability or edit this section - we will paraphrase it in the M1 report - [Logging Dublin M1 Release Planning](#)
  - **Michael O'Brien** - 50% direct Logging work - really 40% dev/devops + 10% PTL/TSC/Project - the rest = related ONAP, CD, Doc, OOM, conference/customer,
  - **Prudence Au** - doing half of the PTL work, template, meets, reviews - especially POMBA with [James MacNider](#) on reviews - representing on most Thu POMBA meets
  - **Avdhut Kholkar** - thank you for all the commit reviews
  - **Luke Parker** - co-PTL and reference code
- Meeting at 1200 EST today on ARM docker images (affecting LOG images as we need to get the ARM layer into the image - wrap the dockerhub versions)
  - [LOG-331](#) - Oneclick Kubernetes install for ARM processor backed A1 AWS VMs CLOSED
- Stop using "latest" for any image - lock down the version tag for testing stability - see our use of busybox
  - [LOG-949](#) - Change busybox image tag from latest to specific version 1.30.0 for integration stability CLOSED
- Good news: We passed M1 last Thu
- Dublin scope finalized for M1
  - [Release Planning#DublinReleaseCalendar](#)
  - [Logging Dublin Scope](#)
- New work for dublin
  - Assist in 5G edge work via OOM/AWS work - meet is at 1100 EST Wed with [ramki krishnan](#)'s team
  - plus metric capture via Prometheus -
  - [LOG-911](#) - Add Prometheus charts for kubernetes metric streaming into the LOG ELK stack CLOSED
  - [LOG-707](#) - Logging EI-Alto (moved from) Dublin Scope CLOSED
- Review/consolidate JIRAs
- opentrace - will try to get in by april - an LF project
- priority list
  - infrastructure - filebeat sidecars (before DaemonSet refactor) - see [Log Streaming Compliance and API](#)
  - format - via library - portal/sdk - minimal retrofit for markers/mdcs -
  - [LOG-600](#) - Align with Portal/SDK logging library - investigate/run/modify to comply with MDC spec CLOSED
  - all s3p - security, perf (aa-log-3\*\*) - scaling - run with 1 logstash
  - Logstash used to be a Daemonset - however the filebeat needs to a daemonset - instead of each sidecar - 1 container per vm - get story
  - Additional tools - get POC for each - determine which goes to production level
    - prometheus - requires coordination with oom and multicloud
    - log checker - pending
  - opentracing - us -  [LOG-104](#) - Investigate Jaeger / opentracing / zipkin distributed tracing agent/server CLOSED
  - search guard - us

PRI	Title	Responsible	Status	In Dublin	Last Worked on	Start	Notes
			<span style="background-color: #2e7131; color: white; padding: 2px 10px; border-radius: 5px;">OPEN</span> <span style="background-color: #66b3ff; color: white; padding: 2px 10px; border-radius: 5px;">DONE</span>				
	Security Vulnerability template	<a href="#">Michael O'Brien</a>	Ongoing	IN		20190122	
	M1 template	<a href="#">Michael O'Brien</a> <a href="#">Prudence Au</a>	<span style="background-color: #66b3ff; color: white; padding: 2px 10px; border-radius: 5px;">DONE</span>	IN	20190124	20190122	
	ONS NA 2019 April Talk proposal	<a href="#">Michael O'Brien</a>	<span style="background-color: #66b3ff; color: white; padding: 2px 10px; border-radius: 5px;">DONE</span>	IN		20190122	pending 20190208 decision <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> <a href="#">LOG-947</a> - ONS NA 2019 April demo code/presentation <span style="border: 1px solid #ccc; padding: 2px;">CLOSED</span></li> </ul>

	Use manifest generation over raw oom values. yaml docker image tag names	Michael O'Brien	DONE	IN	20190124	20190117	<p>Pending documentation in RTD Team,</p> <p>In the TSC it was decided to treat the diff between oom and the manifest by always Casablanca and RC0-2 work</p> <p>Working out the details in</p> <p><a href="https://jira.onap.org/browse/LOG-929">https://jira.onap.org/browse/LOG-929</a></p> <p><a href="https://onap.readthedocs.io/en/casablanca/submodules/integration.git/docs/index.html#michael">https://onap.readthedocs.io/en/casablanca/submodules/integration.git/docs/index.html#michael</a></p>
	S3P Logging compliance TSC /PTL	Michael O'Brien	IN PROGRESS	IN	20190115	20190114	<p>PTL 2019-01-14</p> <p>Log Streaming Compliance and API</p> <p>discussed at last PTL meet with Jason Hunt</p>
	El-Alto 1.4 logging spec change - plan only  todo merge with Dave's below	Michael O'Brien Dave Williamson	IN PROGRESS	IN	20190122		
	Dublin Scope Planning	Michael O'Brien	DONE	IN	20190124		<p><a href="#">LOG-707 - Logging El-Alto (moved from) Dublin Scope</a> [CLOSED]</p> <p><a href="#">Logging Dublin M1 Release Planning</a></p>
	RTD documentation	Michael O'Brien	OPEN	IN	20180129		<p>Attending Thu 1130-1230 meets</p>
	restart log4j format and files example	Michael O'Brien	IN PROGRESS	IN	201901115	20190108	<p><a href="https://gerrit.onap.org/r/#/c/62405/">https://gerrit.onap.org/r/#/c/62405/</a></p> <p>for <a href="#">LOG-630 - Single logback.xml in OOM onap parent chart</a> [CLOSED]</p> <p>and</p> <p><a href="#">LOG-178 - Log Specification Alignment - each onap component</a> [CLOSED]</p> <p><a href="#">Log Streaming Compliance and API#DeploymentProfiles</a></p>

	Work with portal /sdk library	Michael O'Brien	<span style="background-color: orange; color: white; padding: 2px 10px; border-radius: 5px;">IN PROGRESS</span>	IN	20190129	20190115	<p>Update: 20190129 - Existing eclipse environ for the RI being retrofitted at the pom stage bringing in the jar via portal/sdk in use by aai, dmaap, sdk, vid (vid link into so maybe?)</p> <p>&lt;groupId&gt;org.onap.portal.sdk&lt;/groupId&gt;</p> <p>epic</p> <p><span style="color: blue;">LOG-600</span> - Align with Portal/SDK logging library - investigate/run/modify to cor</p> <p>Jira</p> <p><span style="color: green;">PORTAL-348</span> - Investigate/Run/Use/Modify Portal/SDC Logging library to align</p> <p>review investigation in  <a href="#">Logging Developer Guide</a>  <a href="#">Log Streaming Compliance and API#ExistingLibraryResearch</a>  <a href="#">Luke Parker</a> discussion</p> <p>need to use the portal library in an initiating project for tx processing  working likely with the SO team - via the work we are doing for them in <a href="https://gerrit.onap.org">https://gerrit.onap.org</a>  (check the original spec - ODL specific - check appc/sdnc use of ccsdk)</p>
	New Committers		<span style="background-color: green; color: white; padding: 2px 10px; border-radius: 5px;">OPEN</span>		20190115		<p>We have room for 2-5 committers and will be reviewing the list</p> <p><a href="#">Logging Enhancements Project Proposal#KeyProjectFacts</a></p> <p>add your details to</p> <p><a href="#">Logging Committer Promotion Requests</a></p> <p>20190129 status - waiting on contributor documentation from each contributor</p>
	OPNFV /ONAP Paris		<span style="background-color: lightblue; color: black; padding: 2px 10px; border-radius: 5px;">DONE</span>		20190108		<p><a href="https://ddfplugfest19.sched.com/">https://ddfplugfest19.sched.com/</a> Tue-Thu</p> <p>Clover Gambia on prior <a href="https://zoom.us/j/115579117">https://zoom.us/j/115579117</a> - 7 hours ahead</p> <p><a href="https://ddfplugfest19.sched.com/event/K1Gy/opnfv-clover-utilizing-cloud-native-technologies">https://ddfplugfest19.sched.com/event/K1Gy/opnfv-clover-utilizing-cloud-native-technologies</a></p>
	Security badging	Michael O'Brien	<span style="background-color: orange; color: white; padding: 2px 10px; border-radius: 5px;">IN PROGRESS</span>	IN	20190129		Need to restart this
	Security Vulnerabilities	Michael O'Brien Prudence Au	<span style="background-color: orange; color: white; padding: 2px 10px; border-radius: 5px;">IN PROGRESS</span>	IN	20190129		lower - but for M4
	s3p Secure https endpoints  LOG + POMBA	for Jason Hunt	<span style="background-color: green; color: white; padding: 2px 10px; border-radius: 5px;">OPEN</span>	IN			<p>Discussion on whether we need to lock down the nodeport exposed ports</p> <p>Can key off POMBA work already done</p> <p>todo: get s3p page</p>

	Format compliance - working with AAI team + perf	Michael O'Brien	<span style="background-color: orange; color: white; padding: 2px 5px;">IN PROGRESS</span>	IN	20190115	20181101	<p><span style="color: green;">+</span> 20190115 - casablanca cherry pick in queue logstack 5 to 3 and 1  <a href="https://gerrit.onap.org/r/#/c/75702/">https://gerrit.onap.org/r/#/c/75702/</a></p> <p>(+) 20190109 from aai team  <a href="https://wiki.onap.org/display/DW/2019-01-17-AAI+Developers+Meeting+Open+Age">https://wiki.onap.org/display/DW/2019-01-17-AAI+Developers+Meeting+Open+Age</a>  "hector has discovered that the stress test jar (liveness probe?) in aai-cassandra is suspected that may cause pod rescheduling)"</p> <p>#6 on <a href="#">2018-12-20 AAI Developers Meeting</a> around</p> <p><span style="color: red;">☐</span> <a href="#">LOG-376</a> - Logstash full saturation of 8 cores with AAI deployed on one of the</p> <p>Discussion with @Sanjay Agraharam and [~pau2882] on checking how cassandra is use labelling to split aai-cs and ls - no DaemonSet</p> <p>Michael O'Brien to reduce core count for ls to 1 from 3</p> <p><span style="color: blue;">☒</span> <a href="#">LOG-915</a> - Reduce Logstash core limit to 1 from 3 until LOG-LS and AAI-CS p</p> <p>edited <a href="#">2019-01-10 AAI Developers Meeting</a>  for the 10th</p>
	AAI team - 2 types of logging AOP /non-AOP		<span style="background-color: green; color: white; padding: 2px 5px;">OPEN</span>	IN		20181101	#22 on <a href="#">2018-12-20 AAI Developers Meeting</a>
	Logging requests from Vendors		<span style="background-color: green; color: white; padding: 2px 5px;">OPEN</span>				<p><span style="color: green;">☐</span> <a href="#">LOG-877</a> - S3P: Logging streaming/format alignment for dublin - China Telecom</p> <p><span style="color: green;">☐</span> <a href="#">LOG-876</a> - S3P: Logging for Core Service/VNF state and transition model - De</p> <p>#15,19 and 37 on <a href="#">SP priorities for Dublin</a></p>
	LOG Streaming compliance		<span style="background-color: orange; color: white; padding: 2px 5px;">IN PROGRESS</span>	IN			<p>Log Streaming Compliance and API</p> <p><span style="color: blue;">☒</span> <a href="#">LOG-487</a> - LOG Pipeline Integrity: Docker to Filebeat to Logstash to ElasticSe</p> <p><span style="color: blue;">☒</span> <a href="#">LOG-487</a> - LOG Pipeline Integrity: Docker to Filebeat to Logstash to ElasticSe</p> <p><span style="color: red;">☐</span> <a href="#">LOG-852</a> - POMBA: Some pods do not ship with filebeat <span style="border: 1px solid black; padding: 2px;">CLOSED</span></p> <p>and</p> <p>PTL 2019-01-14</p>
	opentracing via <a href="https://opentracing.io/">https://opentracing.io/</a>			IN (planning /POC for sure)	20190123		<p>@Sanjay</p> <p>discuss integration - out of band processing - <span style="color: green;">☐</span> <a href="#">LOG-104</a> - Investigate Jaeger / o</p> <p>see zipkin arch <a href="https://zipkin.io/pages/architecture.html">https://zipkin.io/pages/architecture.html</a></p> <p>possibly tie both as a client of es ?</p> <p>Tie in to ONS NA 2019 April demo booth for LF</p> <p><a href="https://lists.onap.org/g/onap-discuss/message/15066?p=,,20,0,0,:Created,,opentr">https://lists.onap.org/g/onap-discuss/message/15066?p=,,20,0,0,:Created,,opentr</a></p>
	discussion - remove				20190108		<p>discuss tick/tock logging spec behaviour - cassablanca implemented in dublin, dublin</p> <ul style="list-style-type: none"> <li>• Capture any changes to the Casablanca spec to be implemented in Dublin <a href="#">Ac Dublin</a></li> <li>• verified but take care to keep the baseline spec - keep separation for any char</li> </ul>
	Log Checker	Cheuk Yiu Horace Ip Lee Breslau		OUT	20190109		Mike to review with Horace
	Search Guard	Michael O'Brien	<span style="background-color: green; color: white; padding: 2px 5px;">OPEN</span>	Maybe	20180109		<span style="color: green;">☐</span> <a href="#">LOG-494</a> - Use Search Guard Community Edition for TLS REST encryption

	spec changes for Dublin	Dave Williamson		IN (planning)	20190109	20190109	Dublin spec changes for Elalto  environment name  release name  check mail for reply <a href="#">Michael O'Brien</a>  <a href="#">Prudence Au</a> proposal of renaming the log file name itself for the release ie: 3.0.0-OI
	Cluster logging behavior S3P	Dave Williamson  Michael O'Brien  Prudence Au		IN			server name in clustered environments - I will add the details and the Jira right after
	LOG ELK stack indexing /dashboards with Prometheus below		<span style="background-color: #2e7131; color: white; padding: 2px 5px;">OPEN</span>	IN	20190123		
	Casablanca 3.0.1 work until 10th Jan  Including POMBA	Michael O'Brien	DONE		20190122	20190113	<span style="color: red;">✖</span> <a href="#">LOG-913</a> - POMBA: 1 of 11 pods failing on sequenced startup on 3.0.0-ONAP  revert Jira for data-router off TSC-92 - pending merge of <a href="https://gerrit.onap.org/r/#/c/75999/">https://gerrit.onap.org/r/#/c/75999/</a>
	LOG openlab tenant devops cluster creation /testing	Michael O'Brien	Done pending vFW	IN			We have 2 clusters a 1+4 and 1+13 used for testing deployments and running the vFW <a href="#">Logging DevOps Infrastructure</a>
	Wiki edits, RTD review	Michael O'Brien	<span style="background-color: #2e7131; color: white; padding: 2px 5px;">OPEN</span>	IN			Requiring Updates, Merges or Marked Deprecated
	Metric Streaming and Prometheus	Michael O'Brien  Vaibhav Chopra	<span style="background-color: #ffcc00; color: black; padding: 2px 5px;">IN PROGRESS</span>	IN	20181207		<span style="color: blue;">⚡</span> <a href="#">LOG-914</a> - Add Prometheus charts for kubernetes metric streaming into the Logging DevOps Infrastructure  <span style="color: blue;">⚡</span> <a href="#">LOG-773</a> - Prometheus integration with the Logging ELK stack for OPS <span style="border: 1px solid gray; padding: 2px;">CLOSED</span>  <span style="color: green;">✅</span> <a href="#">LOG-864</a> - Dynamic/Live Dashboard for Log Streaming Containers <span style="border: 1px solid gray; padding: 2px;">CLOSED</span>  work with <a href="#">Vaibhav Chopra</a>  <span style="color: blue;">⚡</span> <a href="#">OEM-1504</a> - Health monitoring for ONAP Platform <span style="border: 1px solid gray; padding: 2px;">CLOSED</span>  @Sanjay - note the prom chart assumes a k8s environment - what about bare metal
	Finish SO filebeat additions	Michael O'Brien	<span style="background-color: #ffcc00; color: black; padding: 2px 5px;">IN PROGRESS</span>	IN	20181207		<span style="color: red;">✖</span> <a href="#">SO-1110</a> - Re-add Filebeat sidecars to SO after 2-9 container refactor <span style="border: 1px solid gray; padding: 2px;">CLOSED</span>  <a href="https://gerrit.onap.org/r/#/c/69947/">https://gerrit.onap.org/r/#/c/69947/</a>
	Finish LOG common charts	Michael O'Brien	<span style="background-color: #2e7131; color: white; padding: 2px 5px;">OPEN</span>	OUT to El-alto	20190123	20181207	James MacNider - bring in Priyanka's common eLK charts and use them in Clamp, Logstash, Fluentd  <a href="https://gerrit.onap.org/r/#/c/64767/">https://gerrit.onap.org/r/#/c/64767/</a>  <span style="color: green;">✅</span> <a href="#">LOG-943</a> - Common ONAP Elasticstack Artifacts <span style="border: 1px solid gray; padding: 2px;">CLOSED</span>  revert to El-alto under <span style="color: blue;">⚡</span> <a href="#">LOG-936</a> - Common ELK Helm Charts <span style="border: 1px solid gray; padding: 2px;">CLOSED</span>

	Team Members Thank you and review		<span>OPEN</span>	IN		<ul style="list-style-type: none"> <li>• Shane Daniel to be removed - moved on to AI work - thanks for everything done</li> <li>• Lee Breslau</li> <li>• Luke Parker</li> <li>• Michael O'Brien</li> <li>• Dave Williamson</li> <li>• @Sanjay Agraharam</li> <li>• Lorraine Welch</li> <li>• James MacNider</li> <li>• Prudence Au</li> <li>• Anthony Manuel</li> <li>• Cheuk Yiu Horace Ip</li> </ul>
del	Review last 4 weeks since  LOG Meeting Minutes 2018-12-05		<span>IN PROGRESS</span>			<ul style="list-style-type: none"> <li>• <span style="color: red;">☐ TSC-79</span> - LF Nexus3 routing slowdown starting 20181217 - 80-100x slower dc</li> <li>• <a href="https://lists.onap.org/g/onap-discuss/topic/onap_helpdesk_65866/28800220?fn=1&amp;ln=1">https://lists.onap.org/g/onap-discuss/topic/onap_helpdesk_65866/28800220?fn=1&amp;ln=1</a></li> <li>• <a href="https://wiki.onap.org/display/DW/Cloud+Native+Deployment#CloudNativeDeployment">https://wiki.onap.org/display/DW/Cloud+Native+Deployment#CloudNativeDeployment</a></li> </ul>
	TSC /PTL meet actions		<span>IN PROGRESS</span>			<ul style="list-style-type: none"> <li>• TSC 2018-12-20</li> <li>• TSC 2019-01-03</li> <li>• PTL 2019-01-07</li> </ul>
	OOM transfer chart owners hip to teams LOG is part of poc	Michael O'Brien  Mike Elliott	<span>IN PROGRESS</span>	IN	20190107	<p>Starting - will have a training session - will send out any meetings to onap-discuss</p> <p>We may have the same symlink repo folder like we do for doc</p> <p>Last discussed TSC 20180109</p>
	OOM Deployment priority base platform includes LOG	Michael O'Brien  Mike Elliott	<span>IN PROGRESS</span>	OUT  todo review with Mike Elliott	20190123  20181207	<p>Q2) priority of system level containers like the ELK stack - OOM has a common service</p> <p>There is a cd.sh retrofit that sequences the pods in order for deployment stability - this is a good idea</p> <p><span style="color: green;">☒ LOG-898</span> - ONAP Deployment Resiliency changes to deploy without POD failure</p> <p><span style="color: blue;">☒ LOG-326</span> - CD: OOM automated deployment script <span style="border: 1px solid gray; padding: 2px;">CLOSED</span></p> <p><a href="https://gerrit.onap.org/r/#/c/75422/">https://gerrit.onap.org/r/#/c/75422/</a> via <a href="#">ONAP Development#WorkingwithJSONPath</a></p> <p><span style="color: red;">☐ DCAEGEN2-1067</span> - Deploying DCAEGEN2 late in a sequenced deployment will cause issues</p>
	k8s manifest or oom values. yaml for docker tags - truth	Michael O'Brien	<span>IN PROGRESS</span>		20190123	<p><span style="color: red;">☐ TSC-86</span> - Lock down docker image tag name source of truth - oom values.yaml</p> <p>TODO: paste TSC review - manifest is truth</p> <p>RTD doc link to run the script to get the yaml override</p>
	Nexus3 routing slowdown	Michael O'Brien	<span>DONE</span>		20181222	<p><span style="color: red;">☐ TSC-79</span> - LF Nexus3 routing slowdown starting 20181217 - 80-100x slower dc</p> <p>20181217-22</p> <p><span style="color: green;">☒ LOG-898</span> - ONAP Deployment Resiliency changes to deploy without POD failure</p>
	LOG compliance diagram /exercise	Michael O'Brien  @Sanjay Agraharam	<span>IN PROGRESS</span>		20181205	<p>Log Streaming Compliance and API</p> <p>part of prometheus work now</p> <p>Sanjay - diagram FB must be split between using AOP and AOP+spec compliant - o</p>
	Ongoing					
	CI/CD pipeline TSC poc	Michael O'Brien	<span>IN PROGRESS</span>		20180107	<p><span style="color: blue;">☒ TSC-25</span> - Task Force to implement CD (Continuous Deployment) <span style="border: 1px solid gray; padding: 2px;">CLOSED</span></p> <p>LOG is part of this poc</p> <p><a href="https://lists.onap.org/g/onap-discuss/topic/cd_task_force_tsc_25_meetings/2900164">https://lists.onap.org/g/onap-discuss/topic/cd_task_force_tsc_25_meetings/2900164</a></p>

- Team Members
  -
- Review last 4 weeks since [LOG Meeting Minutes 2018-12-05](#)
  -  **TSC-79** - LF Nexus3 routing slowdown starting 20181217 - 80-100x slower download times totalling 120+ hours - using nexus3/4.
    - onap.cloud proxy for now **CLOSED**
    - [https://lists.onap.org/g/onap-discuss/topic/onap\\_helpdesk\\_65866/28800220?p=,,20,0,0,0::recentpostdate%2Fsticky,,20,2,0,28800220](https://lists.onap.org/g/onap-discuss/topic/onap_helpdesk_65866/28800220?p=,,20,0,0,0::recentpostdate%2Fsticky,,20,2,0,28800220)
- <https://wiki.onap.org/display/DW/Cloud+Native+Deployment#CloudNativeDeployment-NexusProxy>

## Notes