

# 2019-01-10 AAI Developers Meeting

Attachments (including meeting recording)

File	Modified
Text File chat.txt	Jan 12, 2019 by James Forsyth

## Chat Server

private group aai-dev on Rocketchat server: <http://onap-integration.eastus.cloudapp.azure.com:3000/group/aai-dev>

## Agenda Items

START RECORDING

	Title	Responsible	Status	Last discussed	Notes
1	Help patching AAI schema into OOM deployment	Keong Lim	DONE	10th Jan 2019	<p>On 1/9/19, 2:45 AM, "Keong Lim" &lt;Keong.Lim@huawei.com&gt; wrote:</p> <p>I need a little help with some testing.</p> <p>Using the Casablanca branch from the release (not maintenance), I have added some new schema elements and EdgeRules.</p> <p>Using the usual process, I have rebuilt the JAR files.</p> <p>The test environment is using OOM deployment, so I located the pods with kubectl and manipulated the containers with docker to:</p> <ul style="list-style-type: none"> <li>- copy the new JARs into the container</li> <li>- restart the containers</li> </ul> <p>I also previously ran createDBSchema.sh from the resources container, but now it appears in the graphadmin container.</p> <p>Problem is that when I run this from the graphadmin container, it appears to add nothing from the new schema.</p> <p>When I test with some curl scripts, it gives the error about unknown nodes, so it definitely didn't update the database with the new schema.</p> <p>I see also that the OOM environment has a kubernetes job for graphadmin-create-db-schema.</p> <p>Do I need to re-run that job instead of trying to run the shell script? The job definition appears to be just a special case of graphadmin container and it also runs the same script.</p> <p>I don't know if there is a simple way to re-run the job and I would need to ensure that the job picks up my latest JAR files (hopefully without having to build containers and update docker repositories, etc).</p> <p>We need to write down how developers can make custom changes to the schema and try out new configurations locally.</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> James Forsyth creates the JIRA ticket to document this dev use-case how it should be done (so ppl don't have to reverse-engineer replacing JAR files).</li> <li><input type="checkbox"/> Venkata Harish Kajur checks why output of the script for db schema does not print information about the changes so it is clear what happens after it is run (/opt/app/aai-graphadmin/logs/createDBSchema/ Thats the directory where the logs for it will be go) <b>10 Feb 2019</b></li> </ul>
2	AAI Backup and Restore	Keong Lim	ON HOLD	10th Jan 2019	<p>Brian Freeman asked on <a href="#">Re: Backup and Restore Solution: ONAP-OOM</a> :</p> <p>what would be the approach to backup an entire ONAP instance particularly SDC, AAI, SDNC data ? would it be a script with all the references to the helm deploy releases or something that does a helm list and then for each entry does the ark backup ?</p> <p>What is the AAI strategy for backup and restore?</p> <p>What is the overall ONAP strategy for backup and restore?</p> <p>Should it be unified with the data migration strategy as per "Hbase to Cassandra migration" on <a href="#">2018-11-14 AAI Meeting Notes</a>?</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> James Forsyth will raise the topic of having backups and restore functionality in ONAP - if it is feasible, on the roadmap and what others PTL think</li> </ul>

3	Dublin use-cases	Chandra Cinthala	IN PROGRESS	3rd Jan 2019	<p>5G Use Case (Dublin)</p> <p>BBS Broadband Service Use Case (Dublin)</p> <p>CCVPN Use Case (Dublin)</p> <p>Change Management Dublin Extensions</p> <p>Edge Automation Functional Requirements for Dublin</p> <p>OpenSource Access Manager (OSAM) Use Case</p> <p>K8S based Cloud Region Support</p> <p><input checked="" type="checkbox"/> Chandra Cinthala will go over all these use cases and will write a 1 page report per use-case where he lays out the impact and needed high-level description of changes in order to support the use-cases in A&amp;AI. He will send this reports to James Forsyth so he can plan accordingly. The 1 pagers should be discussed with the modelling committee before sending them to James Forsyth . Chandra Cinthala should start here <a href="https://wiki.onap.org/display/DW/Joining+the+ONAP+Technical+Community">https://wiki.onap.org/display/DW/Joining+the+ONAP+Technical+Community</a> when integrating to the ONAP community and the mailing list <a href="https://lists.onap.org/g/main">https://lists.onap.org/g/main</a>. The deadline for Chandra Cinthala to send the reports to James Forsyth is 15 Jan 2019</p> <p>The Dublin use-cases for review are <a href="#">Release 4 (Dublin) Use Cases and functional requirements</a></p> <p>On AAI weekly call on Wednesday <a href="#">Chandra Cinthala</a> will report on his progress in analyzing the use-cases.</p>
4	CCVPN Extension Dublin	<p>Davide Cherubini</p> <p>Susana Sabater</p> <p>emmanuel sarris</p> <p>Christopher Sheng</p> <p>Tony Noori</p>	IN PROGRESS	20th Dec 2018	<p>During the VF2F we have presented the <a href="#">CCVPN Use Case extension</a> for Dublin Release.</p> <p>In particular, we have defined the E-LAN Service (EP-LAN, EVP-LAN) sub-Use Case. More details can be found at this <a href="#">page</a> (the presentation given to the Use Case Subcommittee and during the VF2F can also be found in that page).</p> <p>We have also created 2 additional pages where we describe the:</p> <ol style="list-style-type: none"> <li>1. <a href="#">Implementation Options</a></li> <li>2. <a href="#">Initial Impact assessment</a></li> </ol> <p>In the former page, we have identified Option 2 (for Service Creation) and Option A (for Service Modification) as the "ideal" implementation. The Impacts in the latter page are based on such an assumption.</p> <p>We would be grateful if you could help us with the assessment for A&amp;AI and if you could confirm the project commitment to CCVPN.</p> <p>14th Dec: Regarding the Options and Impact assessment linked above:</p> <div style="border: 1px solid #ccc; padding: 10px; margin: 10px 0;"> <p style="text-align: center; font-size: 2em; font-weight: bold;">AAI</p> <ol style="list-style-type: none"> <li>1. <i>Support Composite Service Instances (multi-operator)</i></li> </ol> </div> <p>As far as I know, the ServiceComposite pattern hasn't even exited the Modelling team's discussions for R3 or R4 workshops <a href="#">Hui Deng</a> :</p> <ul style="list-style-type: none"> <li>▪ <a href="#">Composite vs Recursive Discussion Page</a></li> <li>▪ <a href="#">Composite Pattern UML diagram</a></li> </ul> <p>This would seem like a stretch goal given the impacts on all the downstream clients of AAI, if it would require reworking any existing schema elements.</p> <p>However, if you are looking for a zero-impact method of implementation, the EdgeRules already contain service-instance-to-service-instance relationship with label "org.onap.relationships.inventory.ComposedOf", so AAI can do the composite data with this relationship.</p> <p><input checked="" type="checkbox"/> James Forsyth will send a reminder e-mail to Tony and Christopher to engage them on this task, the plan is to discuss this issues and modeling in general in the first 2 weeks in January</p> <p>Update 3rd January 2019 from CFL comment:</p> <div style="border: 1px solid #ccc; padding: 10px; margin: 10px 0;"> <p style="text-align: center; font-size: 1.2em; font-weight: bold; color: #0070C0;">LIN MENG</p> <p><i>Hil think there might be some confusions in CCVPN use case and the current service IM in the sheet.</i></p> <p><i>I don't think CCVPN has extension demands for A&amp;AI in Dublin release.</i></p> <p><i>What we want to do in D release is to provide a CCVPN service by using one service template to includes the SOTN and SD-WAN resources, which will be a requirement for SDC and modeling DM ( In C release, we have to design each resource as a service based on SDC's ability)</i></p> <p><i>We've actually talked about composite pattern at the beginning of R3 and the modeling team accepts this idea but have no implementation in this concepts.</i></p> <p><i>Also, I think the composite pattern is the same as nested service from service IM perspective. And I think it would be better if we unify them as one concept in ONAP for less confusion, which I will propose to next week's service IM call. Back to the point, we're in redesigning the new service IM of CCVPN and currently, CCVPN doesn't have this need.</i></p> <p style="text-align: right;"><i><a href="#">Pavel Paroulek</a> <a href="#">James Forsyth</a> <a href="#">Hui Deng</a> <a href="#">Davide Cherubini</a> <a href="#">jianguo zeng</a> <a href="#">Chuanyu Chen</a></i></p> </div>

5	Multi-CPU architecture images	<a href="#">Paul Ionut Vaduva</a>  <a href="#">Adolfo Perez-Duran</a>  <a href="#">Adolfo Perez-Duran</a>	<div style="background-color: #4a90e2; color: white; padding: 2px; text-align: center; font-weight: bold;">DONE</div>	3rd Jan 2019	<p>I am writing you because of your comment here:</p> <p><a href="https://jira.onap.org/browse/AAI-1033?focusedCommentId=21154&amp;page=com.atlassian.jira.plugin.system.issuetabpanels:comment-tabpanel#comment-21154">https://jira.onap.org/browse/AAI-1033?focusedCommentId=21154&amp;page=com.atlassian.jira.plugin.system.issuetabpanels:comment-tabpanel#comment-21154</a></p> <p>We have the following issue:</p> <p><a href="https://jira.onap.org/browse/INT-759">https://jira.onap.org/browse/INT-759</a></p> <p>Briefly put, do you think you can help us with the Dockerfile you use to build aai-common docker image, for Casablanca and maybe master if it differs ?</p> <p>Best Regards,</p> <p>Paul</p> <p>14th Dec: See also</p> <ul style="list-style-type: none"> <li>▪ <a href="#">CIA - Project Team Engagement Workflow</a></li> <li>▪ <a href="#">Building a Platform-Agnostic Container Image</a></li> </ul> <p>20th Dec: Clarified that the aai-common docker image is not the same as the aai/aai-common gerrit repository, despite the shared name.</p> <p><input type="checkbox"/> <a href="#">Venkata Harish Kajur</a> will commit the aai-common docker image Dockerfile to somewhere?, we need to inspect it a figure out how to have a general base image. Afterwards we need to provide the information to Paul Ionut Vaduva + Adolfo. What repository to use for AAI:</p> <div style="border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;"> <input checked="" type="checkbox"/> <a href="#">AAI-2056</a> - Check with LF about how to store AAI images that are in dockerhub <span style="float: right;">CLOSED</span> </div> <p><input checked="" type="checkbox"/> <a href="#">Keong Lim</a> raised</p> <div style="border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;"> <input checked="" type="checkbox"/> <a href="#">COMMON-27</a> - ONAP Docker images and base images should be ONAP controlled <span style="float: right;">OPEN</span> </div> <p>List of core project to change is <a href="#">AAI-2025</a> - Classify aai docker images <span style="float: right;">CLOSED</span></p>
6	AAI-DMaaP event problems?	<a href="#">Keong Lim</a>	<div style="background-color: #4a90e2; color: white; padding: 2px; text-align: center; font-weight: bold;">DONE</div>	10th Jan 2019	<p>Just had a look at this DMaaP bug</p> <div style="border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;"> <input checked="" type="checkbox"/> <a href="#">DMAAP-896</a> - [MR] Error: KafkaConsumer is not safe for multi-threaded access <span style="float: right;">CLOSED</span> </div> <p>which shows up two AAI-related exceptions when getting events:</p> <pre style="border: 1px solid #ccc; padding: 5px; font-family: monospace;"> INFO org.onap.dmaap.dmf.mr.service.impl.EventsServiceImpl - KafkaConsumer is not safe for multi-threaded accesson AAI- EVENT datarouter ***** datarouter from Remote10.42.133.135 INFO org.onap.dmaap.dmf.mr.service.impl.EventsServiceImpl - [AAI-EVENT/datarouter/datarouter]  INFO org.onap.dmaap.dmf.mr.service.impl.EventsServiceImpl - KafkaConsumer is not safe for multi-threaded accesson champRawEvents spike ***** spike from Remote10.42.121.41 INFO org.onap.dmaap.dmf.mr.service.impl.EventsServiceImpl - [champRawEvents/spike/spike] </pre> <p>Anyone else seen or reported similar problems in AAI?</p> <p><a href="#">Pavel Paroulek</a> will write what he uncovered about using dmaap and how to configure it. He will put it on the wiki.</p>

7	aai-cassandra performance issues	Keong Lim	ON HOLD	10th Jan 2019	<p>Michael O'Brien has documented performance issues in aai-cassandra:</p> <ul style="list-style-type: none"> <li>Cloud Native Deployment (search for LOG-376 to find the specific references to AAI)</li> <li><a href="https://jira.onap.org/browse/LOG-376?focusedCommentId=29358&amp;page=com.atlassian.jira.plugin.system.issuetabpanels:comment-tabpanel#comment-29358">https://jira.onap.org/browse/LOG-376?focusedCommentId=29358&amp;page=com.atlassian.jira.plugin.system.issuetabpanels:comment-tabpanel#comment-29358</a></li> </ul> <p><i>hector has discovered that the stress test jar (liveness probe?) in aai-cassandra is hammering the cpu/ram/hd on the vm that aai is on - this breaks the etcd cluster (not the latency/network issues we suspected that may cause pod rescheduling)</i></p> <p>Is there something that should be tweaked in AAI config? Or documentation on the recommended setup to run the VM?</p> <p>I'll come to the next AAI meet (conflicts with pomba meet) -</p> <div data-bbox="748 415 1487 464" style="border: 1px solid #ccc; padding: 5px;"> <p> <b>LOG-376</b> - Logstash full saturation of 8 cores with AAI deployed on one of the quad 8 vCore vms for 30 logs /sec - up replicaSet 1 to 3 or use DaemonSet <span style="float: right;">CLOSED</span></p> </div> <p> 20190108 work continues to find the cause - I see 7 vCore spikes on cassandra as well as a saturated logstash on that particular vm - we are no longer a DaemonSet (13 instances on a 13+1 cluster) - I will reduce the current ReplicaSet from 5 to 2 or 1 until I can label the nodes and/or find out what is causing ls to saturate - <a href="#">Prudence Au</a> and Sanjay Agrapharam mentioned cassandra - I have seen cs high on several "top" sessions - will post screen caps - bottom line is correlation - I have a 2nd cluster where I can just run aai,dmaap and log</p> <p><a href="#">LOG Meeting Minutes 2019-01-15</a></p> <div data-bbox="748 636 1487 684" style="border: 1px solid #ccc; padding: 5px;"> <p><input checked="" type="checkbox"/> <b>LOG-915</b> - Reduce Logstash core limit to 1 from 3 until LOG-LS and AAI-CS perf issue on the same VM is determined <span style="float: right;">OPEN</span></p> </div> <p><input type="checkbox"/> ask Michael O'Brien about performance problems - if they persist and what the problem exactly is.</p> <p><input type="checkbox"/> <a href="#">Venkata Harish Kajur</a> will inform Michael about the schema performance fix - he should test with the casablanca maintenance release.</p> <p>On-hold for 3 weeks (end of January) - if until then no performance issues reported agenda item will be closed</p>
8	get notified of AAI Casandra issues automatically	Keong Lim	OPEN		<p>Mike Elliott wrote in <a href="#">OOM Meeting Notes - 2018-12-5</a></p> <p><i>f. AAI team wanted to get notified of AAI Casandra issues automatically i. Can we setup a Nagios or equivalent to monitor both rancher/k8 and the applications for rancher/k8 issues ?</i></p> <p>Keep an eye out for new issues!</p>
9	Purpose of fields in AAI	Keong Lim	OPEN		<p>Dénes Németh wrote in  <b>AAI-1404</b> - Invalid handling of external system certificates <span style="float: right;">CLOSED</span> :</p> <p><i>In think it would be good to answer what is the meaning of the field (collection of PEMs of the CA xor URL)</i></p> <p>Questions:</p> <ol style="list-style-type: none"> <li>Is AAI intended to strictly prescribe how the fields are used and what contents are in the values?</li> <li>Or does AAI simply reflect the wishes of all the client projects that use it to store and retrieve data?</li> </ol> <p>Even if (1) is true, AAI is not really in any position to enforce how clients use the data, so really (2) is always true and we need to consult the original producers of the data and the ultimate consumers of the data to document their intended meanings.</p> <p>How do we push to have documentation on the purpose and meaning of the fields in AAI?</p> <p>Where does all this documentation go?</p> <p>Should the documentation be backed up by validation code?</p> <p>See also discussion about AAI in <a href="#">2018-11-28 ExtAPI Meeting notes</a></p> <p>29th Nov: Started on new wiki page <a href="#">AAI Schema Producer-Consumer Pairings</a></p>

10	Postel's Law / Robustness Principle for AAI data inputs	Keong Lim	<div style="background-color: #008000; color: white; padding: 2px; text-align: center; border-radius: 3px;">OPEN</div>	6th Dec 2018	<p>While helping UUI team to debug a family of related issues such as <span style="border: 1px solid gray; padding: 2px;">CLOSED</span> <a href="#">USECASEUI-483</a> - create ext-aai-network api can not accept json request , found that their JSON request bodies had inserted extra lines that were not acceptable to AAI, e.g.</p> <div style="border: 1px solid gray; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center;"><b>Not Accepted Input</b></p> <pre>{   ext-aai-network: {     "aai-id": "VDF",     "schema-version": "version-1",     "resource-version": "1542082337501"   } }</pre> </div> <p>vs</p> <div style="border: 1px solid gray; padding: 5px; margin-bottom: 10px;"> <p style="text-align: center;"><b>Expected Input Format</b></p> <pre>{   "aai-id": "VDF",   "schema-version": "version-1",   "resource-version": "1542082337501" }</pre> </div> <p>Initially, I thought this could be due to XML-to-JSON translation error, but it could also have been a copy-paste from the output of a GET, e.g.</p> <div style="border: 1px solid gray; padding: 5px; margin-bottom: 10px;"> <pre>&gt; GET /aai/v14/network/ext-aai-networks HTTP/1.1 {   "ext-aai-network": [     {       "aai-id": "createAndDelete",       "schema-version": "version-1",       "resource-version": "1542247826990"     },     {       "aai-id": "aaiId-2",       "schema-version": "version-2",       "resource-version": "1542029867153"     }   ] }</pre> </div> <p>In the spirit of Postel's Law ("be liberal in what you accept"), could/should AAI accept both variations of the input data above?</p> <p>There could be additional validation that the element name inside the request body matches the element name in the URL of the API (similar validation is already performed for the key ID value).</p> <p>It would also allow for simple methods of data transfer/migration, where AAI output is directly accepted as AAI input.</p> <p>7th Dec: As per Jimmy's comment below, the difference between the "Not Accepted Input" and "Expected Input Format" is the behaviour controlled by "SerializationFeature.WRAP_ROOT_VALUE" as described in:</p> <ul style="list-style-type: none"> <li>■ <a href="https://stackoverflow.com/questions/37882478/serializationfeature-wrap-root-value-as-annotation-in-jackson-json">https://stackoverflow.com/questions/37882478/serializationfeature-wrap-root-value-as-annotation-in-jackson-json</a></li> <li>■ <a href="https://fasterxml.github.io/jackson-databind/javadoc/2.6/com/fasterxml/jackson/databind/SerializationFeature.html">https://fasterxml.github.io/jackson-databind/javadoc/2.6/com/fasterxml/jackson/databind/SerializationFeature.html</a></li> </ul>
11	Copyright license header restricted to 1 company	Pavel Paroulek	<div style="background-color: #008000; color: white; padding: 2px; text-align: center; border-radius: 3px;">OPEN</div>		<p>In the copyright</p> <pre>/**  * =====LICENSE_START=====  *  * org.onap.aai  *  * =====  *  * Copyright © 2017-2018 AT&amp;T Intellectual Property. All rights reserved.</pre> <p>If there is a company other than AT&amp;T the build fails saying the license header is wrong</p>

12	Return codes and messages for WS	<a href="#">Pavel Paroulek</a>	OPEN	Is there a guide for the description of the error message and the error codes? How are new error states (message + code) added?
13	OOM Artifacts	<a href="#">Pavel Paroulek</a>	OPEN	Some of our top level OOM deployment artifacts are not unique (i.e. don't take namespace into account as all other deployables), is that intentional?
14	AAI test data bootstrap	<a href="#">Keong Lim</a>	OPEN	<p>Looking at AAI usage in OOF - HPA guide for integration testing by Dileep Ranganathan, wondering whether there is a better way to bootstrap AAI test data?</p> <div data-bbox="820 296 1112 331"> <h3>Generating AAI data</h3> </div> <p><i>Note: Required only if the Multicloud has no real cloud-regions and HPA discovery cannot happen.</i></p> <p><i>If Multicloud team has data for creating the Cloud-region and doesn't have the HPA, then please update the existing data with the flavors with HPA.</i></p> <ol style="list-style-type: none"> <li>1. Import the postman collection <a href="#">CASABLANCA_AAI_postman.json</a></li> <li>2. To add/remove HPA Capabilities edit the flavors section in the body of PUT Cloud-Region{x}</li> <li>3. Once all the necessary Use postman to add the complex and cloud regions in the order specified below (snip screenshot of specific sequence)</li> <li>4. Use the GET requests to verify the data. (snip screenshot of specific sequence)</li> </ol> <p>Similarly, <a href="#">Scott Seabolt</a> and <a href="#">J Armstrong</a> / <a href="#">Joss Armstrong</a> wrote for APCC <a href="#">Sample A&amp;AI Data Setup for vLB/vDNS for APCC Consumption and Script to load vLB into AAI</a>:</p> <p><i>The below put_vLB.sh script can be used to submit the vLB data to A&amp;AI in order to run ConfigScaleOut use case. This script and referenced JSON files are used on an AAI instance where the cloud-region and tenant are already defined.</i></p> <p>Similarly:</p> <ul style="list-style-type: none"> <li>▪ <a href="#">TEST-133</a> - Demo.sh init step is not adding availability-zone information in AAI <span>CLOSED</span></li> <li>▪ <a href="#">INT-705</a> - Add availability zone call to AAI in Robot framework <span>CLOSED</span></li> <li>▪ <a href="#">vCPE Use Case Tutorial: Design and Deploy based on ONAP</a></li> </ul> <p>Related <a href="#">AAI-1948</a> - Correct broken links <span>CLOSED</span> on the brittleness of the ReadTheDocs links to data files.</p> <p>One for VIM: <a href="#">How-To: Register a VIM/Cloud Instance to ONAP</a> and <a href="#">AAI-1928</a> - AAI-Internal server Error:500 <span>CLOSED</span></p> <p>Potential issues:</p> <ul style="list-style-type: none"> <li>• fragility of static import data file w.r.t. schema changes and version upgrades for each ONAP release?</li> <li>• how "common" is this knowledge, i.e. what to load, where to get it, who else should be using it, etc?</li> <li>• should it be automated/scripted, rather than manual steps to bootstrap?</li> <li>• should it be a simulator program or test harness, rather than a static data file?</li> <li>• should it reside within AAI CI/CD jobs for maintenance and upgrade of schema versions?</li> <li>• who maintains the data itself? Is there a "data repository" which can be delegated to other teams, e.g. like documentation repository links in git?</li> <li>• how many other teams have similar private stashes of AAI bootstrap data?</li> <li>• does it need to be published at a stable URL to avoid linkrot?</li> </ul>
15	AAI too slow for OOF/HAS	<a href="#">Keong Lim</a>	OPEN	<p>Under OOF <a href="#">Homing and Allocation Service (HAS)</a> section, <a href="#">Dileep Ranganathan</a> wrote about <a href="#">Project Specific enhancements</a>:</p> <p><i>Optimize - AAI cache</i></p> <ul style="list-style-type: none"> <li>• Use MUSIC or any other alternative in memory caching like Redis etc?</li> <li>• Optimize flavor retrieval from A&amp;AI and Cache the information if necessary</li> </ul> <p>See also <a href="#">OPTFRA-268</a> - OOF - project specific enhancements <span>CLOSED</span> / <a href="#">OPTFRA-294</a> - Optimize the use of AAI cache in HAS Data component <span>CLOSED</span></p> <p>Similarly to the "AAI too slow for Holmes" item below, this introduction of extra caching of AAI data is a worrisome development and sad indictment of the performance of the system architecture.</p> <p>What can we do about this?</p> <p>Would the AAI Cacher <a href="#">AAI-1337</a> - AAI Cacher <span>CLOSED</span> help to improve performance?</p>

16	MultiCloud usage of AAI for HPA telemetry/time-series data to OOF	Keong Lim	OPEN	<p>Bin Yang and Lianhao Lu wrote in</p> <p><b>MULTICLOUD-274</b> - HPA telemetry data collection and persistence <span>CLOSED</span> :</p> <p>HPA telemetry data collection and make it persistent in A&amp;AI, from which OOF can leverage during its decision making process.</p> <p>and</p> <p>1. Multi-cloud to collect the data from time-series data services like Prometheus (<a href="http://prometheus.io">http://prometheus.io</a>) or openstack Gnocchi, and push them to A&amp;AI based on the data recording &amp; aggregation rules.</p> <p>and</p> <p>The reason why we propose here is that VES mechanism doesn't store the telemetry data into A&amp;AI. And OOF now can only get those kind of data from A&amp;AI.</p> <p>Some concerns:</p> <ul style="list-style-type: none"> <li>how much additional load will this place on AAI?</li> <li>will AAI cope with this load?</li> <li>is AAI suitable for "time-series data"?</li> <li>is "telemetry data" considered to be "active &amp; available inventory"?</li> <li>should OOF access the telemetry/time-series data via other means (not AAI)?</li> <li>AAI API latency (4-6 second per request as benchmarked in CMCC lab) could be a problem</li> </ul>
17	Relationship between POMBA Common Model and AAI schema?	Keong Lim	DONE	<p>Under <a href="#">POMBA Common Model</a>, <a href="#">Geora Barsky</a> and <a href="#">Sharon Chisholm</a> discuss objects that seem to overlap the AAI schema:</p> <ul style="list-style-type: none"> <li>Network has direct relationships with PNFs and physical links</li> <li>PNF has direct relationship with p-interfaces and l-interfaces</li> </ul> <p>Curious to know what is the relationship between the POMBA Common Model and the AAI schema? There seems to be an overlap in these object definitions and relationships.</p> <p>Is POMBA a potential client for AAI schema services?</p> <p>15th Nov: As per Geora's and Sharon's comments:</p> <p>POMBA is a client of AAI APIs. It retrieves certain objects from AAI and transforms it into POMBA COMMON model which is aimed to represent flat structure of service instance representation.</p> <p>and</p> <p>The POMBA model enables us to normalize data from different data sources to facilitate auditing. To save time and work, we often use A&amp;AI as our starting point, but conceptually, this model can have more than is currently or makes sense to have in A&amp;AI.</p> <p>So, POMBA needs to evolve independently of AAI, even though it has common ancestry.</p> <p>As we are having discussions about the AAI Schema Services with a view to future dynamic schema updates, e.g. via SDC modelling, we will need to be aware of the downstream impacts of such a change.</p> <p>I think this needs to be added to the use cases for AAI Schema Services (and GraphGraph?) behaviours.</p>
18	AAI-BBS for Dublin	Keong Lim	OPEN	<p>Started collating proposed changes in wiki <a href="#">AAI-BBS Proposals for Dublin Release</a></p> <p>Investigating code proposal 1:</p> <p>In AAI, when the "orchestration-status", "service-instance-location-id", "input-params" for a Service Instance changes, notify ExtAPI so it does not need to poll AAI</p> <p>Is it already covered by spike? If so, how to consume the events? If not, how to make AAI publish new events to DMaaP?</p>

19	Orchestration Scenarios for VNFs	Keong Lim	OPEN		<p>Comments on <a href="#">Orchestration Scenarios</a> related to AAI:</p> <p><a href="#">Viswanath Kumar Skand Priya / Viswanath KSP</a> said:</p> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px 0;"> <p><i>Thank you <a href="#">Ranny Haiby &amp; Fernando Oliveira</a> . I agree partly, but I still have following queries.</i></p> <ul style="list-style-type: none"> <li><i>I agree &amp; acknowledge that atleast for a foreseeable future, we would need a way to specify the VNF / NFVO as part of "Design Decision", which I believe can be reflected as part of VNF/NSD ( using some special attribute ) or as part of internal Model that SDC might build before distributing the same. SO can then use this hint to select relevant actors. My only question is, why this has to be maintained in AAI which is exclusively for runtime record? All AAI cares about is what is running in the network irrespective of how that got orchestrated. Isn't it ?</i></li> </ul> <p><i>On a broader note, I would like to understand what's the original intent of AAI ( atleast in ECOMP world ) ? Are we simply assuming that, just because AAI has "available inventory" in its name, we are expecting it to keep track of cloud inventory realtime ? Because our entire story ( including the new G-FPS proposal ) is based on this assumption. Can anyone from AAI team or ATT clarify on this ?</i></p> <p><i>Because AFAIK, AAI neither has the schema to host such available inventory, nor the MC has the pub/sub or polling mechanism ( today ) to refresh the cloud inventory inplace. Ofcourse those can be scoped for further releases, but my original question is, was that the original intent behind AAI or are we now including it in the scope?</i></p> </div> <p>and <a href="#">Fernando Oliveira</a> replied:</p> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px 0;"> <p><i>For the first question: I think that A&amp;AI needs to maintain the VNF instance VNF instance and the NS instance NFVO instance relationship for subsequent life cycle operations, i.e. a scale or heal operation. The path would be something like Event (VNF Instance, Busy) DCAE (policy for VNF instance) Policy Evaluation (VNF instance, Scale-out) SO (VNF instance, Scale-out) A&amp;AI (find VNF instance for the VNF instance) SO (VNF instance, VNF instance, Scale-out) SOL003 Adapter (VNF instance, VNF instance, Scale-out) VNF instance (VNF Instance, Scale-out).</i></p> </div> <p>As I understand, ESR has "esr-vnfm-list", which has an "esr-vnfm", which has "esr-system-info-list", which has "esr-system-info", which has a "relationship-list" that can contain relationships to "generic-vnfm" and other AAI objects.</p> <p>The "generic-vnfm" object also contains "self-link", "ipv4OamAddress", "ipv4OamGatewayAddress", etc, which links the AAI object back to its "source-of-truth" external-system.</p> <p>Is there some new data, new schema or new API that is required on top of this?</p> <p><a href="#">Fernando Oliveira</a>; Apologies for my lack of knowledge, but a few comments:</p> <ol style="list-style-type: none"> <li>For the VNF/VF VNF case, I think that there needs to be a reference from a VNF/VF instance record to the specific instance of the VNF that was used to deploy the VNF/VF. If there is already such a reference from the VNF/VF through the ESR to the specific item on the esr-vnfm-list, then I think that would be sufficient. If not, I think that would be a new requirement.</li> <li>For the Service NFVO case, Is there an equivalent NFVO/Orchestrator list in the ESR? The esr-nfvo-list would need the same set of info as the VNF case. If the esr-nfvo-list does exist, I think that there needs to be a reference from the Service Instance record to the specific NFVO instance that deployed the Service. Is there such a reference? If not, I think that would be a new requirement.</li> </ol> <p><a href="#">Bo Lv</a> can comment more on the current ESR capabilities, but I believe there are only 3 kinds of systems so far: EMS, VNF and third-party SDNC.</p> <p>ESR could be extended to handle VNFO as another kind of system.</p> <p><a href="#">Fernando Oliveira</a> : I created JIRA stories:</p> <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> <a href="#">REQ-422</a> - ONAP tracking of available external (ETSI compliant NFVO) orchestrators <span style="float: right;">DONE</span></li> <li><input checked="" type="checkbox"/> <a href="#">REQ-423</a> - ONAP tracking of Service dependency on an external orchestrator <span style="float: right;">DONE</span></li> <li><input checked="" type="checkbox"/> <a href="#">ONAPARC-390</a> - ONAP tracking of VNF dependency on an external ETSI compliant VNF Manager (VNFM) <span style="float: right;">CLOSED</span></li> </ul> <p>for various parts of the scenario.</p>
20	Modeling team R4 discussion, including extra AAI attributes in a model-driven way	Keong Lim	IN PROGRESS	15th Nov 2018	<p>Modelling team having <a href="#">Service Instance thoughts</a> by <a href="#">Chesla Wechsler</a>, which will affect AAI schema.</p> <p>Also referred from comments on <a href="#">ONAP R4+ Service Modeling Discussion Calls</a></p> <div style="border: 1px solid #ccc; padding: 5px; margin: 5px 0;"> <p><i>9)"vhn-portal-uri"? "Bandwidth", "QoS", "SLA", etc, attributes that not all the services need but still need to be stored in certain service instance: stored as a schemaless field on the service-instance vertex (Chesla will follow up) (my concerns: according to the call, is that ok if we set a "global-type of service" and a "customized-type of service", then mapped it with internal descriptor, and A&amp;AI's model only stores global type in service instance's schema, but stores the customer-faced attributes of service in a schemaless way? <a href="#">Chesla Wechsler Kevin Scaggs Andy Mayer</a>)</i></p> </div> <p>See also <a href="#">Modeling 2018-11-13</a></p> <p>The service-instance already uses a "metadata" relationship, which can store an arbitrary list of key-value pairs, but perhaps AAI should extend the use of the "properties" element, which is also an arbitrary list of name-value pairs or the "extra-properties" element, which is also an arbitrary list of name-value pairs.</p> <p>15th Nov: Having seen Chesla's presentation, it should be called "Model-driven schema" rather than "schemaless" behaviour, since the idea is that the changes are controlled by SDC modelling. Seems aligned to the eventual goal in <a href="#">AAI Schema Service Use Case Proposals</a> and <a href="#">AAI Schema Service</a>.</p>

21	AAI too slow for Holmes	Keong Lim CT Paterson	IN PROGRESS	1st Nov 2018	<p>Guangrong Fu mentioned AAI in <a href="#">Baseline Measurements</a> based on <a href="#">Testing Results</a>:</p> <ol style="list-style-type: none"> <li>Cache the AAI data and refresh them periodically so that Holmes won't have to make an HTTP call to AAI every time it tries to correlate one alarm to another.</li> </ol> <p>The problem for caching is how to know when to update the cached data. Even though the access time may be fast for Holmes, the risk is using out-of-date data, so the correlations will be wrong anyway. Also, duplicating the AAI data outside of AAI is probably a bad architectural decision. Making AAI faster for these use cases would be better.</p> <p>Has there been a performance analysis of where the time is spent? Could it help to use Elasticsearch (e.g. as in sparky)? Should Holmes have a batch interface to get more AAI data in fewer calls? Or a better correlation API that results in fewer calls?</p> <p>31st Oct: <a href="https://lists.onap.org/g/onap-discuss/topic/27805753">https://lists.onap.org/g/onap-discuss/topic/27805753</a></p> <p>1st Nov:</p> <ul style="list-style-type: none"> <li>Guangrong Fu will try custom queries for queries that took too long to return</li> <li>The hardware (mainly storage) influences the query speed - need to find out what hardware was the speed test conducted on (Guangrong Fu will provide HW specs)</li> </ul> <p> <a href="#">HOLMES-186</a> - Improve the performance on AAI queries. <span>CLOSED</span></p> <p>Would the AAI Cacher  <a href="#">AAI-1337</a> - AAI Cacher <span>CLOSED</span> help to improve performance?</p>
22	2 Types of logging in A&AI WS	Pavel Paroulek	ON HOLD	1st Nov 2018	<p>There are 2 types of logging in the services</p> <ul style="list-style-type: none"> <li>one read from EELFManager</li> <li>the other Logger log = Logger.getLogger( ...</li> </ul> <p>Is that correct? Shouldn't there be just 1 type?</p> <p>1st Nov:</p> <p>After Casablanca release investigate logging guidelines and figure out what library to use in order to unify logging within A&amp;AI</p> <p>26th Nov: See also <a href="#">ONAP Application Logging Specification - Post Dublin</a></p> <p>29th Nov: how does this fit with</p> <p> <a href="#">LOG-877</a> - S3P: Logging streaming/format alignment for dublin - China Telecom, Deutsche Telekom, Vodafone <span>CLOSED</span></p> <p>?</p>
23	Disable unused web services  (see also Helm chart requested values)	Pavel Paroulek	IN PROGRESS	20th Dec 2018	<p>Could we disable unused (i.e. not integrated) A&amp;AI web services, so that the deployment is faster and the resource footprint is smaller? e.g. Champ (any other ws?)</p> <p>Motivation: Decrease the resource footprint for A&amp;AI (ONAP) deployments</p> <p>Idea: we could support 2 different deployments 1. full (normal) deployment and 2. barebones deployment. The point of the "barebone" deployment would be to deploy only the essential services necessary for proper functioning of A&amp;AI (leaving out services like cacher, sparky, graphadmin, having 1 cassandra node instead of 3 or 5 etc).</p> <p>In order to reduce hardware/cloud costs (mainly the memory footprint) it could be beneficial to support a minimalistic A&amp;AI deployment.</p> <p>1st Nov:</p> <p><a href="#">Venkata Harish Kajur and Pavel Paroulek</a> - investigate how to disable/enable charts in A&amp;AI so we can create a core group of pods which handle the use-cases and then extended group will all the services. Consider a group of unused/unintegrated services (like Champ). Consider other possible groups (like GUI?)</p> <p><input checked="" type="checkbox"/> James Forsyth creates a JIRA ticket to define the list of A&amp;AI subprojects and create the categories (essential, full "experience") for the OOM deployment  <a href="#">AAI-2025</a> - Classify aai docker images <span>CLOSED</span></p>
24	AAI Champ	Pavel Paroulek	IN PROGRESS	1st Nov 2018	<ol style="list-style-type: none"> <li>Who is responsible for the project?</li> <li>What is the roadmap for the project?</li> <li>Who will do the integration?</li> </ol>
25	Dublin 5G Use Case	Benjamin Cheung	IN PROGRESS	25th Oct 2018	<p>Dublin AAI changes in support of 5g use cases.</p> <p>Link for presentation: <a href="#">5G - PNF Plug and Play (Casablanca carry-over items)</a></p> <ol style="list-style-type: none"> <li>NF A&amp;AI: S/W Image Repository Info</li> <li>NF A&amp;AI: Cloud Home Info</li> <li>NF A&amp;AI: External Manager IP Address</li> <li>NF A&amp;AI: S/W Version Object Association</li> </ol>

26	AAI Tutorial updates	Keong Lim	IN PROGRESS	29th Nov	<p>Following updates for <a href="#">AAI Developer Environment Setup - Casablanca</a> need to update the link in step 14:</p> <p><a href="#">Tutorial: Making and Testing a Schema Change in A&amp;I</a></p> <ul style="list-style-type: none"> <li>Need separate pages for Beijing, Casablanca, Dublin, etc.</li> <li> <a href="#">AAI-4973</a> - Schema update wiki is out of date of Casablanca <span>CLOSED</span></li> </ul> <p>Harish will update the documentation - the section <a href="#">Tutorial: Making and Testing a Schema Change in A&amp;I</a></p> <p>Need to distinguish on the wiki tutorials for:</p> <ul style="list-style-type: none"> <li>running A&amp;I (just installing for non-devs)</li> <li>setting up a dev environment to develop AAI ("Developer Onboarding" section on wiki)</li> </ul> <p><a href="#">James Forsyth</a> will check if we still need to support HEAT deployment for Dublin</p>
27	Schema Service	Manisha Aggarwal	IN PROGRESS	29th Nov 2018	<p>Discuss about the Schema Microservice</p> <p><a href="#">AAI Schema Service</a></p> <p>11th Oct: Suggested <a href="#">Use Case Proposals for Dynamic AAI Schema Changes</a> based on CCVPN usecase experience</p> <p>1st Nov: <a href="#">William Reehil Robby Maharajh Venkata Harish Kajur</a> will review requirement updates and research the open questions so that a final draft can be prepared for implementation</p> <p>8th Nov: Added <a href="#">AAI Schema Service Use Case Proposals</a> for discussion and planning</p> <p>15th Nov: Reviewed the Requirements section in <a href="#">AAI Schema Service</a> again.</p> <p><a href="#">William Reehil</a> wrote introduction to (proposal for?) <a href="#">A&amp;I GraphGraph</a></p> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;"> <p><i>What must the solution provide?</i></p> <ul style="list-style-type: none"> <li>a generic interface to interact with the schema and edge information, so it can be accessed via end users and microservices</li> <li>ability to be configured with any schema given in the set formats (JSON for edge rules, OXM for schema)</li> <li>ability to easily communicate to an end user a node type's attributes and edge rules when provided with a node type as input</li> </ul> </div> <p>Looks like an API to reflect on the schema from an instance in the database.</p> <p>Is there some overlap with the AAI Schema Services?</p> <p>Is this leveraging AAI Schema Services e.g. as client? proxy? facade? implementation detail?</p> <p>Is it an alternative to AAI Schema Services?</p> <p>Update: <a href="#">Keong Lim</a> I do see an overlap with the schema service mainly for the retrieval of the data, but GraphGraph will offer more on top of that(UI, NLP), during the POC code for GraphGraph there was no schema service. Implementation details can be discussed on our call for how exactly to leverage the schema service, the poc code, and where the core logic resides for this functionality.</p> <p>15th Nov: Reviewed <a href="#">A&amp;I GraphGraph</a> and agreed that there is now overlap with <a href="#">AAI Schema Service</a> that should be addressed in updating the POC version.</p>
28	AAI GraphGraph	Keong Lim	IN PROGRESS	29th Nov 2018	<p><a href="#">William Reehil</a> wrote introduction to (proposal for?) <a href="#">A&amp;I GraphGraph</a></p> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;"> <p><i>What must the solution provide?</i></p> <ul style="list-style-type: none"> <li>a generic interface to interact with the schema and edge information, so it can be accessed via end users and microservices</li> <li>ability to be configured with any schema given in the set formats (JSON for edge rules, OXM for schema)</li> <li>ability to easily communicate to an end user a node type's attributes and edge rules when provided with a node type as input</li> </ul> </div> <p>Looks like an API to reflect on the schema from an instance in the database.</p> <p>Is there some overlap with the AAI Schema Services?</p> <p>Is this leveraging AAI Schema Services e.g. as client? proxy? facade? implementation detail?</p> <p>Is it an alternative to AAI Schema Services?</p> <p>Update: <a href="#">Keong Lim</a> I do see an overlap with the schema service mainly for the retrieval of the data, but GraphGraph will offer more on top of that(UI, NLP), during the POC code for GraphGraph there was no schema service. Implementation details can be discussed on our call for how exactly to leverage the schema service, the poc code, and where the core logic resides for this functionality.</p> <p>15th Nov: Reviewed <a href="#">A&amp;I GraphGraph</a> and agreed that there is now overlap with <a href="#">AAI Schema Service</a> that should be addressed in updating the POC version.</p>
29	AAI HAProxy and 2-way-TLS	Pavel Paroulek	IN PROGRESS	29th Nov	<p>Technical solution to either decommission the proxy or make design changes to AAF to enable client side certificates.</p> <p>After VF2F we will know if this is a requirement in Dublin. We discuss after this date.</p> <p>question raised: MSB - would client authentication be supported?</p> <p>15th Dec: <a href="https://wiki.onap.org/display/DW/Pluggable+Security#PluggableSecurity-7.10">https://wiki.onap.org/display/DW/Pluggable+Security#PluggableSecurity-7.10</a> <a href="#">Identifiedandsupportedpatternsandfeatures</a></p>
30	AAF Resiliency	Keong Lim	IN PROGRESS	6th Dec 2018	<p><a href="#">Yang Xu</a> wrote in <a href="#">AAF Component</a>:</p> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;"> <p><i>Issues and Workaround</i></p> <p>If AAF stops working, e.g. AAI returns authorization error, bounce AAF aaf-locate and aaf-service containers.</p> </div> <p>This looks like some problem for resiliency and healthchecks. Is there a JIRA case for this already? An earlier case mentioned the "fix" in passing</p> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;"> <p> <a href="#">AAI-4762</a> - [aai-traversal] Fails to authorize user with java.lang.IllegalStateException <span>CLOSED</span> . Also in</p> </div> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;"> <p> <a href="#">AAI-4772</a> - ModelLoader fails to store model during model distribution <span>CLOSED</span></p> </div> <p><a href="#">Helen Chen</a>, is there a scenario for this in <a href="#">Casablanca Release Resiliency Testing Status</a></p> <p><a href="#">Jonathan Gathman</a>, <a href="#">Mike Elliott</a>, how can this remedy be automated?</p> <p>See also  <a href="#">AAF-599</a> - Users of the CADI library should be able to detect AAF service down <span>CLOSED</span></p> <p><input checked="" type="checkbox"/> <a href="#">James Forsyth</a> will ask <a href="#">Jonathan Gathman</a> about this item.</p>

31	named-query replacements	James Forsyth	IN PROGRESS	6th Dec 2018	<p><a href="#">AAI-1989</a> - AAI Named Query Deprecation <input type="button" value="OPEN"/></p> <p><a href="#">APPC-1245</a> - AAI named-queries are being deprecated and should be replaced with custom-queries <input type="button" value="CLOSED"/></p> <p><a href="#">POLICY-1278</a> - AAI named-queries are being deprecated and should be replaced with custom-queries <input type="button" value="CLOSED"/></p> <p><a href="#">VID-355</a> - AAI named-queries are being deprecated and should be replaced with custom-queries <input type="button" value="OPEN"/></p> <p>Need to replace custom queries currently in use by these systems (and others?) in Dublin toward the retirement of the named-query API in Dublin</p>
32	Helm chart 'requested' values for Small + Large AAI deployments	James Forsyth	IN PROGRESS	6th Dec 2018	<p><input checked="" type="checkbox"/> <a href="#">AAI-1946</a> - Correct resources requirements in Helm Charts <input type="button" value="CLOSED"/></p> <p><input checked="" type="checkbox"/> James Forsyth will apply the changes he outlined in AAI-1940</p>
33	Answering wiki questions	Team	IN PROGRESS	13th Dec 2018	<p>Recently saw a few unanswered AAI questions in <a href="https://wiki.onap.org/display/DW/questions/all?&amp;filter=recent">https://wiki.onap.org/display/DW/questions/all?&amp;filter=recent</a></p> <p>Probably need a regular reminder to monitor this corner of the wiki to be responsive to users.</p> <p>Pavel: Or maybe something like an A&amp;AI mailing list? (just brainstorming here)</p> <p><b>Pavel: RESOLUTION MISSING!</b></p>
34	Janus Graph 0.2.2 or 0.3.1	James Forsyth	IN PROGRESS	13th Dec 2018	<p>Discuss a move to janusgraph 0.2.2 or 0.3.1 in Dublin.</p> <p>Benefits ?</p> <p>Breaking change + migration needed ?</p> <p>Analysis needed on benefits of 0.3.1 until 10th Jan 2019 (decision should be made on the meeting on 10th).</p> <p>If no significant benefit in 0.3.X present and migration would be needed then upgrade only within 0.2.X version (assuming upgrading within 0.2.X is not a breaking change)</p>
35	Spring Boot Upgrade	James Forsyth	IN PROGRESS	13th Dec 2018	<p><a href="https://spring.io/blog/2018/11/29/spring-boot-1-5-18-available-now">https://spring.io/blog/2018/11/29/spring-boot-1-5-18-available-now</a> - support for 1.5.x spring boot will end in Aug 2019 so we should consider upgrading.</p> <p>We should update to spring 2.X.X.</p> <p>On the meeting on the 10th Jan discuss if anyone has anything against it, if not then <a href="#">James Forsyth</a> creates a JIRA item for Dublin for upgrading the spring in all A&amp;AI repositories.</p>