

# CONFIGURATION PERSISTENCE SERVICE R6

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## Description

5G RAN physical/logical topology information (SDN-R) Core & RAN elements. 5G Configuration, provisioning of a 5G Network. SDN-R should contain the 5G Network Topology. CM Audit. CM Mediation. CM run-time storage / data persistency (MariaDB)

15 Nov 2019 - it was decided that the RunTime Config DB will be part of CCSDK in R6. The new project proposal as RunTime Config DB will be for R7, but it is being worked on in the R6 timeframe.

Topic	Wiki Link
PROJECT PROPOSAL	<a href="#">Configuration Persistence Service Project</a> Target for R7 Guilin
(All Project Proposals)	<a href="#">New Project Proposals</a>
COMPONENT DESCRIPTION	<a href="#">ARC RunTime DB Component Description - R6 Frankfurt</a>
ARCHITECTURE FLOWS	<a href="#">ARCHCOM: InfoFlow - RunTime Config DB Information Flow</a>

## BUSINESS DRIVER

This section describes Business Drivers needs.

**Executive Summary** - 5G RAN physical/logical topology information (SDN-R) Core & RAN elements. 5G Configuration, provisioning of a 5G Network. SDN-R should contain the 5G Network Topology. CM Audit. CM Mediation. CM run-time storage / data persistency (MariaDB). Configuration Management is a major LCM/OAM function with many operations. This use case will be a multi-release effort.

- **Data Persistency** - Storage of run-Time data storage. A configuration database (such as Maria DB) for data persistency and access to configuration information.

**Business Impact** - The ability to configure a RAN network (CU/DU) PNF and VNF with ONAP is a critical business function because configuration management is a core LCM/OAM operation.

**Business Markets** - This use case applies to any domain (wireless, transport, optical, wireline) that ONAP will manage. It is not a market specific function.

**Funding/Financial Impacts** - This use case represents a large potential OPEX savings for operators because of the ability to configure networks saving time and expenses.

**Organization Mgmt, Sales Strategies** - There is no additional organizational management or sales strategies for this use case outside of a service providers "normal" ONAP deployment and its attendant organizational resources from a service provider.

Other CM Topics (future releases)

- **CM Audit** - Auditing configuration parameters for consistency, accuracy.
- **CM Mediation** - Configuration functions to correct and mediate settings.
- **Data Persistency** - Storage of run-Time data storage. A configuration database (such as Maria DB) for data persistency and access to configuration information.
- **Topology Management** - the configuration and view of a RAN network topology.
- **Standardizing** - Harmonizing management between vendors, and alignment to standards bodies such as 3GPP for CM topics.
- **Golden Standard** - Managing CM with Golden "Templates" and base-lined parameters.

## DEVELOPMENT IMPACTS

The REQ (requirements) epic for this Use Case is

[REQ-267](#) - Getting issue details...

STATUS

NOTE: 1. Collect Configuration data via Netconf with VES CM notify notification.descope from R6

2. Support all vendor specific Configuration Information Model ( CIM/Yang) descope from R6

PROJECT	PTL	User Story / Epic	Requirement
A&AI	James Forsyth	Epic #1: Base RunTime DB Development	E1: A&AI Provides initial physical inventory info to ConfigDB
AAF	Jonathan Gathman		
APPC	Takamune Cho		
CLAMP	Gervais-Martial Nguoko		
CC-SDK (Controller)	Dan Timoney	Epic #1: Base RunTime DB Development	E1a. Provide RunTime DB yang model to RunTime DB.
DCAE	Vijay Venkatesh Kumar	Epic #1: Base RunTime DB Development	E1a. VES/DCAE pathway to provide configuration notification RunTime DB E1b. VES Event Listener Document to be updated. E1c. New VES Event domain (CM Notify) to be introduced (DCAE VES Listener) <div><a href="#">DCAEEN2-1769</a> - Getting issue details... STATUS</div>
DMaaP	Mandar Sawant	Epic #1: Base RunTime DB Development	E1a. VES/DCAE pathway to provide configuration notification RunTime DB
External API	Matthieu Geerebaert		
MODELING	Hui Deng	Epic #1: Base RunTime DB Development	E1a. Design-Time modeling; Platform ONAP Model for RunTime DB to build initial structure. Use of onboarded Yang model (in vendor PNF package).
Multi-VIM / Cloud	Bin Yang		
OOF	Shankaranarayanan Puzhavakath Narayanan		
POLICY	Pamela Dragosh		
PORTAL	Manoop Talasila		
Controller	Dan Timoney	Epic #1: Base RunTime DB Development SDN-R and Controller Impact	E1a. Provide RunTime DB yang model to RunTime DB. E1a. SO + Controller pathway BACK to the PNF through Netconf to update RunTime DB.
SDC	Ofir Sonsino		
SO	Seshu Kumar Mudiganti		
VID	Ittay Stern		
VNFRQTS	Steven Wright		
VNF-SDK	Weitao Gao		
CDS	Yuriy Malakov		

List of PTLs:[Approved Projects](#)

## ARCHITECTURE DISCUSSION

The architecture discussion held on Sept 10, 2019 and Sept 3, 2019 centered around the discussion about where the RunTime DB should architecturally live.

some choices are: (1) have RunTime DB as a platform component (2) have it as a part of a controller (3) have it as part of the common services (4) have it as part of CC-SDK (as part of common services).

See the supporting files which has the slides & discussion notes



The WIKI page for ARC RunTime DB Component is at:

[ARC RunTime DB Component Description - R6 Frankfurt](#)

## MEETINGS

DATE	Meeting	Wiki Page
18 Oct 2019	RunTime Config DB discussion	<a href="#">2019-10-18 Meeting notes</a>
25 Oct 2019	RunTime Config DB team meeting Project Proposal	<a href="#">RunTime Config DB Meeting notes Oct 25, 2019</a>
01 Nov 2019	RunTime Config DB team meeting Project Proposal	<a href="#">RunTime Config DB Meeting notes Nov 1, 2019</a>
08 Nov 2019	RunTime Config DB team meeting Project Proposal	<a href="#">RunTime Config DB Meeting notes Nov 8, 2019</a>
15 Nov 2019	RunTime Config DB team meeting Project Proposal	<a href="#">RunTime Config DB Meeting notes Nov 15, 2019</a>
13 Dec 2019	RunTime config DB team meeting project proposal	<a href="#">RunTime Config DB Meeting notes Dec 13, 2019</a>
10 Jan 2020	RunTime Config DB team meeting	<a href="#">RunTime Config DB Meeting notes Jan 10, 2019</a>
24 Jan 2020	RunTime Config DB team meeting	<a href="#">RunTime Config DB Meeting notes Jan 24, 2019</a>
31 Jan 2020	RunTime Config DB team meeting	<a href="#">RunTime Config DB Meeting notes Jan 31, 2019</a>
07 Feb 2020	RunTime Config DB team meeting	<a href="#">RunTime Config DB Meeting notes Feb 7, 2019</a>
14 Feb 2020	Project Proposal	<a href="#">RunTime Config DB Meeting notes Feb 14, 2019</a>
21 Feb 2020	Project Proposal	<a href="#">RunTime Config DB Meeting notes Feb 21, 2019</a>
28 Feb 2020		<a href="#">RunTime Config DB Meeting notes Feb 28, 2019</a>
06 Mar 2020	R7 Proposal	<a href="#">RunTime Config DB Meeting notes Mar 6, 2020</a>
13 Mar 2020	R7 Proposal	<a href="#">RunTime Config DB Meeting notes Mar 13, 2020</a>
20 Mar 2020	R7 Proposal	<a href="#">RunTime Config DB Meeting notes Mar 20, 2020</a>
27 Mar 2020	TSC Peer Review Name Discussion	<a href="#">RunTime Config DB Meeting notes Mar 27, 2020</a>
03 Apr 2020	Name Discussion	<a href="#">RunTime Config DB Meeting notes Apr 3, 2020</a>
10 Apr 2020	Proposal Review from TSC / Issues	<a href="#">RunTime Config DB Meeting notes Apr 10, 2020</a>
17 Apr 2020	Read the Docs R6 RC0 status	<a href="#">RunTime Config DB Meeting notes Apr 17, 2020</a>
23 Apr 2020	<a href="#">sample-landingpage Project Home Page</a>	<a href="https://wiki.lfnetworking.org/display/LN/2020+April+Technical+Event+Schedule">https://wiki.lfnetworking.org/display/LN/2020+April+Technical+Event+Schedule</a>
24 Apr 2020	Discussion	<a href="#">Configuration &amp; Persistency Service Meeting notes Apr 24, 2020</a>
29 Apr 2020	TSC Q&A answers	<a href="#">Configuration &amp; Persistency Service Meeting notes Apr 29, 2020</a>
TBD	Joint Discussion with Harmonization Team	
TBD	Joint Discussion with Network Slicing Team	
TBD	Joint Discussion with OOF/SON/PCI team	

## SUPPORTING FILES:

Document	Files
Run Time DB Overview and presentation	 DataPersistency...B_10162019.pptx
Run Time DB Architecture Presentation (Made to Arch S/C) with discussion	<a href="#">DataPersistencyRunTimeDB_03Sep2019v1.pptx</a>  ANSWERS TO TSC (May 13 2020) <a href="#">ConfigurationPersistencySvc_13My2020v5.pptx</a>
Data Persistency Service	 DataPersistency...nOct212019.pptx

## INTEGRATION & TESTING

This section discusses the Testing & Integration for R6 PnP

1. **WHO IS TESTING** - what company, team, and people will be doing the testing & responsibilities for testing.
2. **TEST ENVIRONMENT** - which does the lab & test environment.
3. **RESOURCES NEEDED** - what resources are needed.
4. **WHO IS CONTRIBUTING RESOURCES** - what resources will be provided and by whom/what company.
5. **NETWORK CONNECTIVITY** - Network connectivity
6. **TEST/INTEGRATION LEADER** - [Sandeep Shah](#) , [Dongho Kim](#)
7. **INTEGRATION LEAD DEFINITION** - ONAP "Use Case/Requirement" [Integration Lead](#)

RunTime Config DB Integration Test Cases. These can be navigated to from the Integration team page hierarchy.