

# R7 PNF Plug and Play PnP

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## USE CASE KEY INFORMATION

USE CASE	LEAD CONTACTS / DESCRIPTION	WIKI
PNF Plug and Play	Benjamin Cheung , Damian Nowak	<a href="#">5G - PNF Plug and Play</a>
Integration Leads	Marcin Przybysz , Krzysztof Kuzmicki	
Requirement ID	Epic Jira for the requirement	<a href="#">REQ-318</a> - Getting issue details... <a href="#">STATUS</a>
	SO Story Jira for PnP	<a href="#">SO-2981</a> - Getting issue details... <a href="#">STATUS</a>
	Modeling Story jira for PnP	<a href="#">MODELING-368</a> - Getting issue details... <a href="#">STATUS</a>
Architecture Sub-committee Jira tracker	Architecture sub-committee presentation	<a href="#">ONAPARC-575</a> - Getting issue details... <a href="#">STATUS</a>
Model Place / Geolocation / AAI Schema	<a href="#">PNFD/SDC AID/AAI Schema Modeling/5G Svc Model - R7 Discussion</a>	
Meetings Register	Papyrus model: <a href="#">Proposed Location Model</a>	
Generic Information Element Definition for Geolocation Model	<a href="#">Generic Information Element Definition for Geolocation Model</a>	

## NON FUNCTIONAL REQUIREMENT CONTRIBUTION

COMPONENT	U/C STORY JIRA	NFR JIRA	COMPANY	DESCRIPTION
SO	<a href="#">SO-2981</a> - Getting issue details... <a href="#">STATUS</a>	<a href="#">REQ-351</a> - Getting issue details... <a href="#">STATUS</a>	Nokia	Non Functional requirement associated contribution.  No technical dependency/ organizational dependency.  <u>SO NFR Support</u> : Component of SO/LIBs update to Java v11
SO Dashboard				<a href="#">Service Orchestrator Guilin Release M1</a>

# BUSINESS DRIVER

This section describes Business Drivers needs.

**EXECUTIVE SUMMARY** - This requirement will augment the work-flow to building block management within SO for Plug and Play operation. The continues the work started in R6. In R6, some of the SO work-flow to building block work was finished, and in R7 this is enhanced. The description of the "base" work which will be enhanced is shown in the wiki: [PNF PLUG and PLAY in R6 Frankfurt](#)

**BUSINESS IMPACT** - The enhancement to Plug and Play operation in ONAP is a critical business function because they enhance installation and commissioning activities.

**BUSINESS MARKETS** - This project applies to any domain (wireless, transport, optical, and wireline) that ONAP may manage.

**FUNDING/FINANCIAL IMPACTS** - The plug and play project has Operating Expense (OPEX) savings for operators because of the ability to saving time and expenses during installation and commissioning and contributes towards ZTM (Zero touch management).

**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.

# DEVELOPMENT STATUS

PR OJ ECT	PTL	User Story / Epic	Re qui re me nt
A& AI	James Forsyth William Reehil	NO IMPACT	
AAF	Jonathan Gathman x	<b>EPIC #1</b> <b>(TEST ONLY / Integration)</b> CMPv2 - Enhanced Secure X.509 Certificate support (email from <a href="#">Damian Nowak</a> suggests to remove this dependency - testing will occur with REQ-321) <b>REQ-318 PNF Plug &amp; Play in R7</b> I think, we need to remove the dependency to AAF for REQ-318. REQ-318 covers mainly work in the SO component. Looking at PNF PNP feature E2E we might have some relation to REQ-321, but no strict dependency. Perhaps some AAF dependency was mentioned in REQ-318, before REQ-321 was created. I'd remove the AAF dependency from REQ-318 actually.	
AP PC	Takamune Cho	NO IMPACT	
CL AMP	Gervais-Martial Ngueko	NO IMPACT	
CC - SD K	Dan Timoney	NO IMPACT	
DC AE	Vijay Venkatesh Kumar	NO IMPACT	
DM aaP	Mandar Sawant	NO IMPACT	
Ext ern al API	Matthieu Geerebaert	NO IMPACT	
MO DE LING	Hui Deng	NO IMPACT	
Mu lti- VI M /  Clo ud	Bin Yang Eric Multanen	NO IMPACT	

<b>MUSIC</b>	Bharath Balasubramanian (Empty)	NO IMPACT	
<b>OOF</b>	Shankaranarayanan Puzhavakath Narayanan  krishna moorthy	NO IMPACT	
<b>PO LIC</b>	Pamela Dragosh Jim Hahn	NO IMPACT	
<b>PORTAL</b>	Manoop Talasila Sunder Tattavarada	NO IMPACT	
<b>SDNC</b>	Dan Timoney	<b>EPIC #3</b>  Licensing Management flow w.r.t. PnP (q.v. Licensing Management Use Case)  (Dependency) Enhancements for requesting License Key File (LKF) & Licenses from License Service (message exchange)	
<b>SDC</b>	Ofir Sonsino	NO IMPACT	
<b>SO</b>	Seshu Kumar Mudiganti	<b>EPIC #2</b>  Workflow to Building Block Development and integration  BB execution Framework, extended to understand PNFs.  Preparing input object used for different BBs.  Framework needs to take into PNFs. (Possible debug/work)  (Testing & Integration Work). Environment where this is run  Model parameters added, address the right CDS Blueprint.	
<b>VID</b>	Ittay Stern	NO IMPACT	
<b>VF-C</b>	Yuanhong Deng	NO IMPACT	
<b>VNFRQTS</b>	Steven Wright	NO IMPACT	
<b>VN F-SDK</b>	Weitao Gao	NO IMPACT	
<b>CDS</b>	Yuriy Malakov	NO IMPACT	

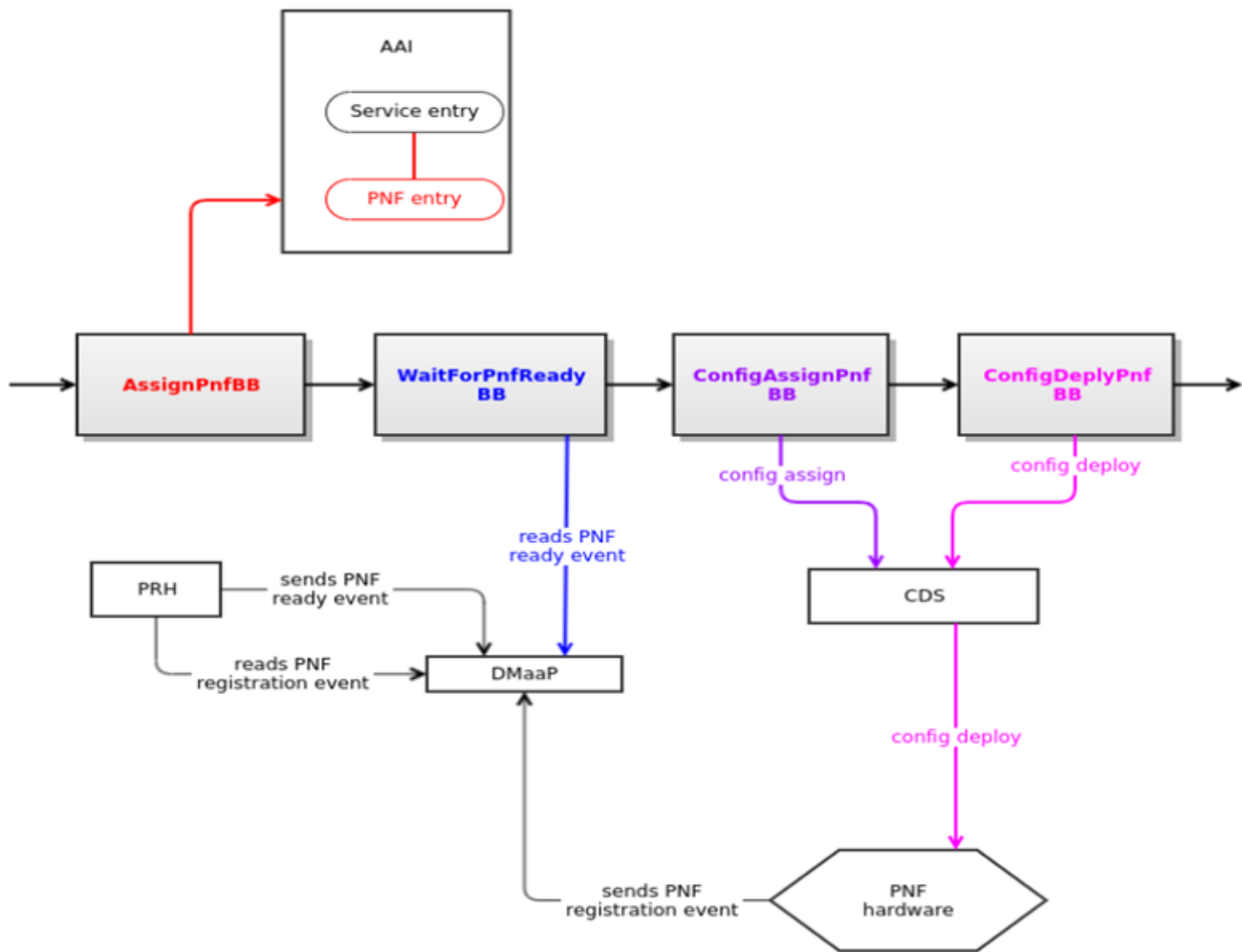
List of PTLs: [Approved Projects](#)

\*Each Requirement should be tracked by its own User Story in JIRA

## USE CASE DIAGRAM

Use cases define how different users interact with a system under design. Each use case represents an action that may be performed by a user (defined in UML as an Actor with a user persona).

## Proposed building blocks



## USE CASE FUNCTIONAL DEFINITIONS

<b>Use Case Title</b>	PNF Plug and Play - SO Building Block (Work flow)
<b>Actors (and System Components)</b>	PNF (5G DU) ONAP DCAE-VES Event Listener / PRH: PNF Registration Handler
<b>Description</b>	PNF Plug and Play is used for installation and commissioning when a PNF registers with ONAP
<b>Points of Contact</b>	<a href="#">Benjamin Cheung</a> , <a href="#">Damian Nowak</a>
<b>Preconditions</b>	Design time activities have occurred, and Stage 1 of the Plug and Play Base Use Cases documented here: <a href="#">5G - PNF Plug and Play</a>
<b>Triggers / Begins when</b>	This is used during Installation & Commissioning for Plug and Play when SO needs to initiate the Building Block flow for PnP
<b>Steps / Flows (success)</b>	The flows are documented here: <a href="#">5G - PNF Plug and Play</a>
<b>Post-conditions</b>	The post-conditions are after the flows are after the ConfigDeployPNF. The workflow has been completed and executed in SO


<b>Alternate / Exception Paths</b>	<p>Errors can occur while executing the AssignPNF BB, Waiting for PNF ready BB, Config Assign PNF BB or Config Deploy PNF BB.</p> <p>If the Waitfor PNF ready BB waiting for the PNF ready event never arrives because the PNF does not send the PNFRegistration event.</p> <p>(the full details of the flows are in this wiki: <a href="#">5G - PNF Plug and Play</a>)</p>
<b>Related Use Cases</b>	None
<b>Assumptions</b>	None
<b>Tools / References / Artifacts</b>	References are listed in the base wiki: <a href="#">5G - PNF Plug and Play</a>

## INFORMATION MODEL TEMPLATE

The modeling information for Geolocation can be found here:

[Generic Information Element Definition for Geolocation Model](#)

## SUPPORTING FILES

Topic	File
Place / Geolocation Parameters & Analysis	<a href="#">PNFPlaceModel.xlsx</a>
ETSI SOL001 proposal - Geolocation Update	 <p>NFVSOL(20)0003...s_support.docx</p>

PLACE Proposal (Updated Aug 6 2020)



PNFPlaceModel\_...02008Ag06.xlsx



GeolocationIMP...06Ag2020v3.pdf

## TESTING

### Current Status

1. Testing Blockers
2. High visibility bugs
3. Other issues for testing that should be seen at a summary level
4. Where possible, always include JIRA links

## END TO END FLOW TO BE TESTED

## MEETING LOG

Regular meetings for PNFD/SDC AID/A&AI Schema Modeling and 5G Service Modeling

discussion for Geolocation & Place development for using using Plug and Play.

See this wiki for the Meetings: [PNFD/SDC AID/AAI Schema Modeling/5G Svc Model - R7 Discussion](#)

you can watch/listen to previous recordings and meeting at the R6 PnP page: [PNF PLUG and PLAY in R6 Frankfurt](#)

## TEST CASES AND STATUS

1	There should be a test case for each item in the sequence diagram	NOT YET TESTED
2	create additional requirements as needed for each discreet step	COMPLETE
3	Test cases should cover entire Use Case	PARTIALLY COMPLETE
4	Test Cases should include enough detail for testing team to implement the test	FAILED