

Smart Operator Intent Translation in UUI based on IBN - R8 5G Slicing Support

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Requirement Overview & Description

A lightweight and high-cohesion Nature Language Processing (NLP) function is proposed to add in the UUI project, in order to translate the network operation engineers' text/voice intents to the suitable slicing parameters quickly and decrease the manual configurations.

Smart Operator Intent Translation in UUI based on IBN - R8 5G Slicing Support:

- Executive Summary** - Intent-based network (IBN) is a self-driving network that uses decoupling network control logic and closed-loop orchestration techniques to automate application intents. An IBN is an intelligent network, which can automatically convert, verify, deploy, configure, and optimize itself to achieve target network state according to the intent of the operators, and can automatically solve abnormal events to ensure the network reliability. In R8, the smart operator intent translation function is proposed to support the 5G slicing selection of current E2E usecase in UUI.
- Business Impact** - In 5G networks, dozens of slice templates will be created to support different SLA requirements. It is difficult for the operators to select the target slice and create the slice instance manually. The IBN based smart operator intent translation function is applied to select the target slice automatically and accurately.
- Business Markets** - Currently, the smart operator intent translation function is developed to support the 5G slice selection. In the further releases, it will be improved to support multiple network configurations in ONAP.
- Funding/Financial Impacts** - This function will have OPEX savings by selecting more accurately slices to save the network resources, and decreasing the labor cost using automation technology.
- Organization Mgmt, Sales Strategies** - *There is no additional organizational management or sales strategies for this requirement outside of a service providers "normal" ONAP deployment and its attendant organizational resources from a service provider.*

Use Case Key Information

TOPIC	DESCRIPTION	WIKI PAGE
Requirements Proposal		Honolulu release - functional requirements proposed list#SmartOperatorIntentTranslationinUUIbasedonIBN-R85GSlicingSupport
Architecture S/C info	ONAPARC-641	Honolulu-R8 Functional Requirements Architecture Reviews
Prior Project "Base" Wiki		Smart Operator Intent Translation in UUI based on IBN - R8 5G Slicing Support
Requirements Jira (REQ-###) Ticket	REQ-453	 REQ-453 - Smart Operator Intent Translation in UUI based on IBN - R8 5G Slicing Support DONE
Key Use Case Leads & Contacts	Requirement LEAD: Dong Wang USE KEY CONTACTS: Xin Zhang Huang ZongHe	
Meetings Register & Recordings		

BUSINESS DRIVER

This section describes Business Drivers needs. These business drivers are presented on the Requirements Sub-committee and should also be put into the release requirements sub-committee page.

Executive Summary - Intent-based network (IBN) is a self-driving network that uses decoupling network control logic and closed-loop orchestration techniques to automate application intents. An IBN is an intelligent network, which can automatically convert, verify, deploy, configure, and optimize itself to achieve target network state according to the intent of the operators, and can automatically solve abnormal events to ensure the network reliability. In R8, the smart operator intent translation function is proposed to support the 5G slicing selection of current E2E usecase in UUI.

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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

PROJECT	PTL	User Story / Epic	Requirement
A&AI	William Reehil		
AAF	Jonathan Gathman		
APPC	Takamune Cho		
CLAMP	Gervais-Martial Ngueko		
CC-SDK	Dan Timoney		
DCAE	Vijay Venkatesh Kumar		
DMaaP	Mandar Sawant		
External API	Adrian OSullivan		
HOLMES	Guangrong Fu		
MODELING	Hui Deng		
Multi-VIM / Cloud	Bin Yang		
OOF	krishna moorthy		
OOM	Sylvain Desbureaux		
POLICY	Jim Hahn		
PORTAL	Sunder Tattavarada		
SDN-C	Dan Timoney		
SDC	Christophe Closset		
SO	Seshu Kumar Mudiganti		
VID	Ikram Ikramullah		
VF-C	Yuanhong Deng		
VNFRQTS	Steven Wright		
VNF-SDK	Weitao Gao		
CDS	Yuriy Malakov		

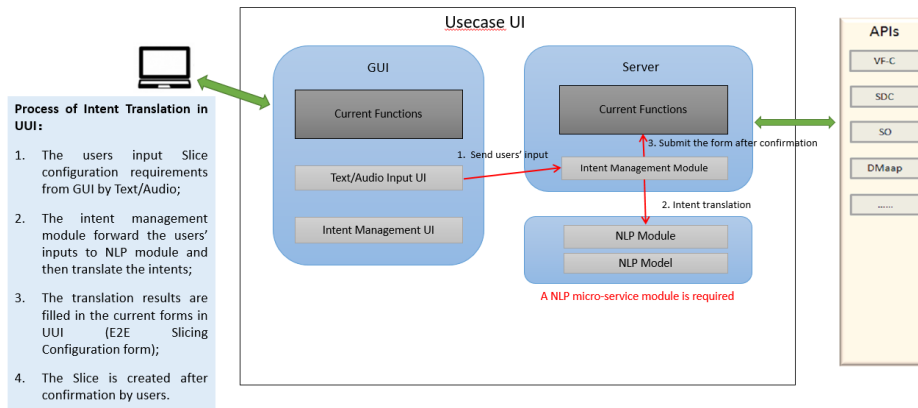
List of PTLs:[Approved Projects](#)

*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).

UI Architecture with IBN



Use Case Functional Definitions

Use Case Title	Smart Operator Intent Translation in UUI based on IBN - R8 5G Slicing Support
Actors (and System Components)	UUI
Description	<i>A lightweight and high-cohesion Nature Language Processing (NLP) function is proposed to add in the UUI project, in order to translate the network operation engineers' text/voice intents to the suitable slicing parameters quickly and decrease the manual configurations.</i>
Points of Contact	Dong Wang Xin Zhang Huang ZongHe
Preconditions	
Triggers / Begins when	
Steps / Flows (success)	
Post-conditions	
Alternate / Exception Paths	
Related Use Cases	
Assumptions	
Tools / References / Artifacts	

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

****This should be a summary level Sequence diagram done in Gliffy****

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