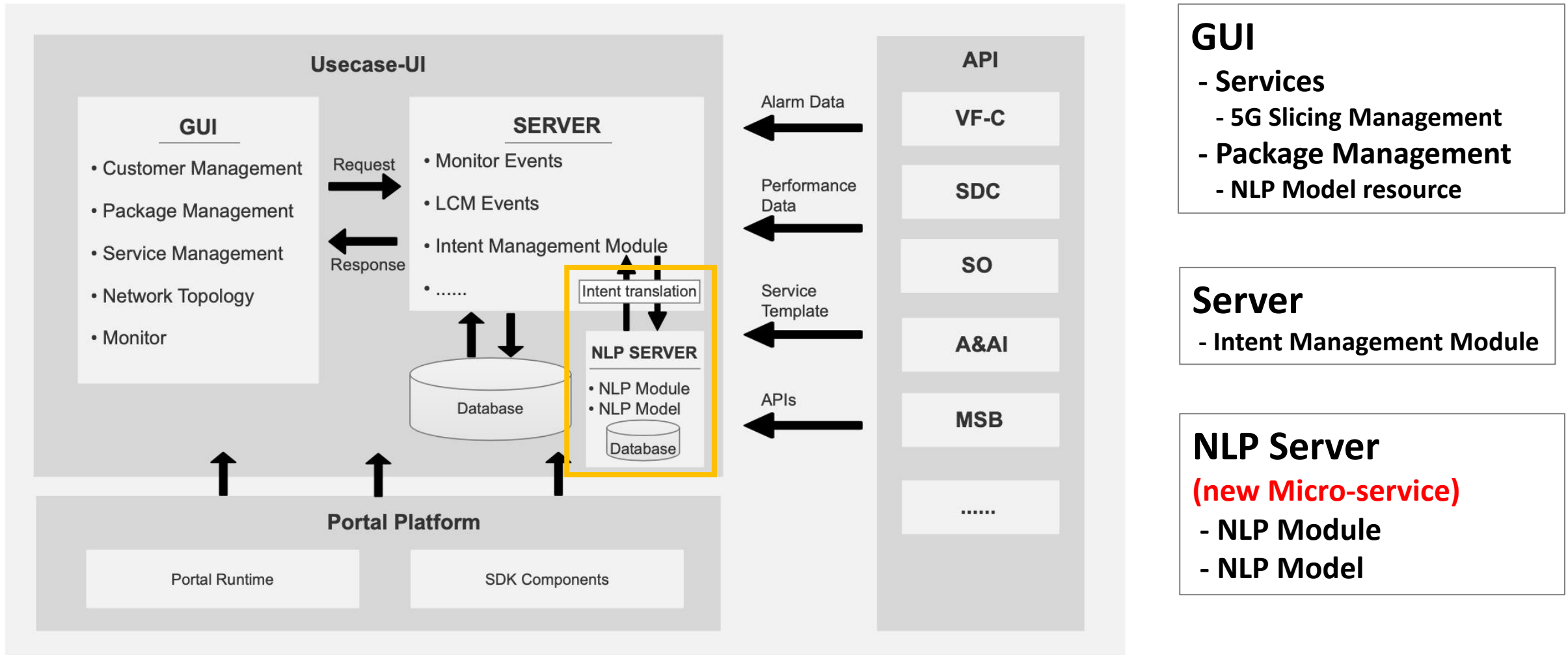




Usecase UI Jakarta Architecture Review

Architecture Subcommittee Review
18th Jan, 2022

1. UI Architecture with IBN module since Honolulu Release



GUI

- Services
- 5G Slicing Management
- Package Management
- NLP Model resource

Server

- Intent Management Module

NLP Server

(new Micro-service)

- NLP Module
- NLP Model

2.1 E2E Slicing smart create page based on IBN (R8)

The screenshot displays the ONAP user interface. On the left is a dark sidebar menu with the following items: Home, Customer, Services (highlighted in green), Lifecycle Management, SOTN Eline, 5G Slicing Management (highlighted with a red box), Intent-based Services, Package Management, Network Topology, and Monitor. The main content area is titled 'Communication Service' (highlighted with a red box) and includes sub-sections for 'Slicing Task Management' and 'Slicing Resource Management'. A 'Smart Create' button (highlighted with a red box) is visible in the top right. A modal dialog box titled 'Communication Service Message' is open in the center, featuring a 'Text Input' radio button (highlighted with a red box) and an 'Audio Input' radio button. Below the radio buttons is a text input field with the placeholder text 'Please input communicationMessage'. At the bottom of the dialog are 'Cancel' and 'OK' buttons. The background shows a table with columns for 'S-NSSAI', 'Status', 'Activate', and 'Terminate'.

2.2 CCVPN smart create page based on IBN (R9)

The screenshot displays the ONAP user interface for the 'Cloud Leased Line' page. The left sidebar contains a navigation menu with the following items: Home, Customer, Services (highlighted), Lifecycle Management, SOTN Eline, 5G Slicing Management, Intent-based Services (highlighted with a red box), Package Management, Network Topology, and Monitor. The main content area features a header with 'Cloud Leased Line' (highlighted with a red box), 'Intention Library Management', and 'Intention Instance Management'. Below the header, there are two buttons: 'Smart Create' (highlighted with a red box) and 'Create'. A table below the buttons has the following columns: No, Communication Service Name, Intent Instance ID, Status, and Operation button. The table contains one row with the text 'No data' centered under the 'Intent Instance ID' column.

No	Communication Service Name	Intent Instance ID	Status	Operation button
		No data		

3. REQ-1075 Network Services without Perception for Users based on IBN

The new network applications, like E2E Slicing and CCVPN, provide different SLA services to customers. In this REQ, a scenario of intent guarantee is proposed to support the SLA requirements of users in run-time, as well as updating users' intents. **In R10, Network Services without perception for users based on IBN will be developed to support the E2E Slicing and CCVPN.**

Key Contacts - Dong Wang (China Telecom), Henry Yu (Huawei), Keguang He (CMCC)

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 R10, a Specification of network service without perception for users is proposed in UUI to support the use cases of both CCVPN and E2E Slicing.

Business Impact - It is a challenging problem to acquire the users' intents and provide the satisfied network service in run-time. The REQ of intent-based network provides a scenario of users' intent guarantee and interacting.

Business Markets - This REQ provides a novel solution to support the SLA service.

1. A users' intent instance is proposed to monitor and analysis the network in run-time to satisfy the users' SLA service.
2. The users' intents are updated in run-time based on the network situation and the interaction with users.
3. Multiple network services, like CCVPN and E2E Slicing, can provide satisfied services for users based on their intents. Users will not need to select the network services by hand.

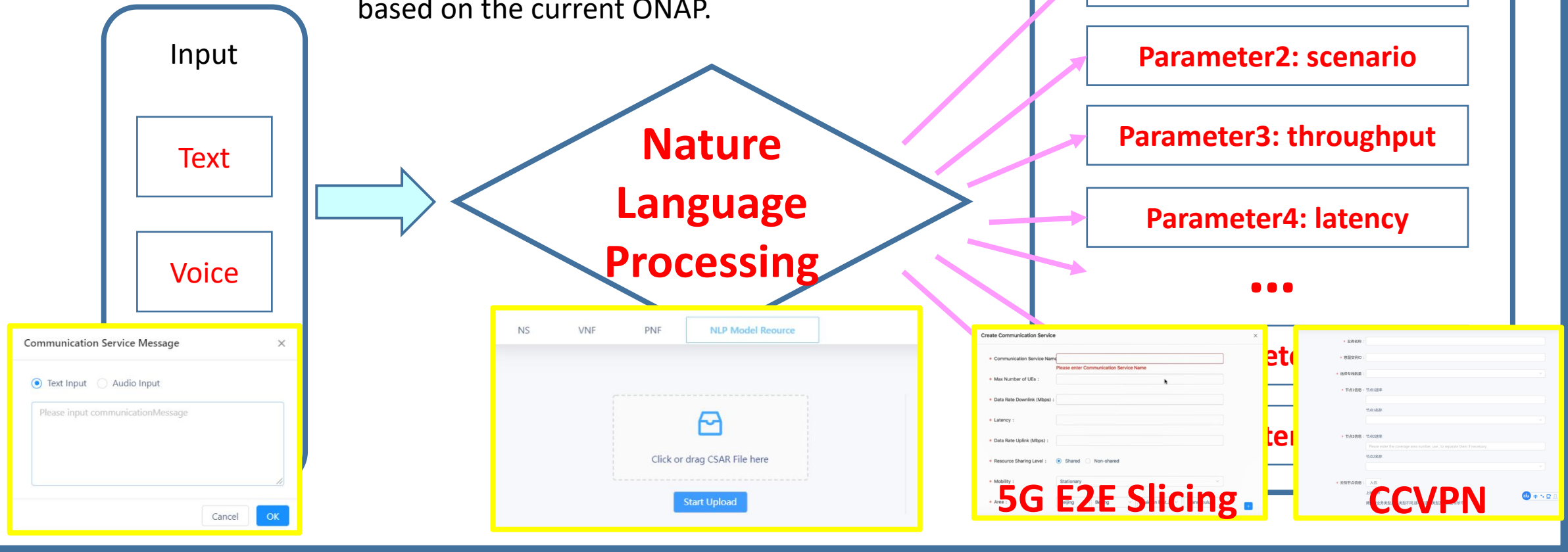
Funding/Financial Impacts - This function will provide more SLA services to increase the income of operators based on the current networks with few investments.

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.*

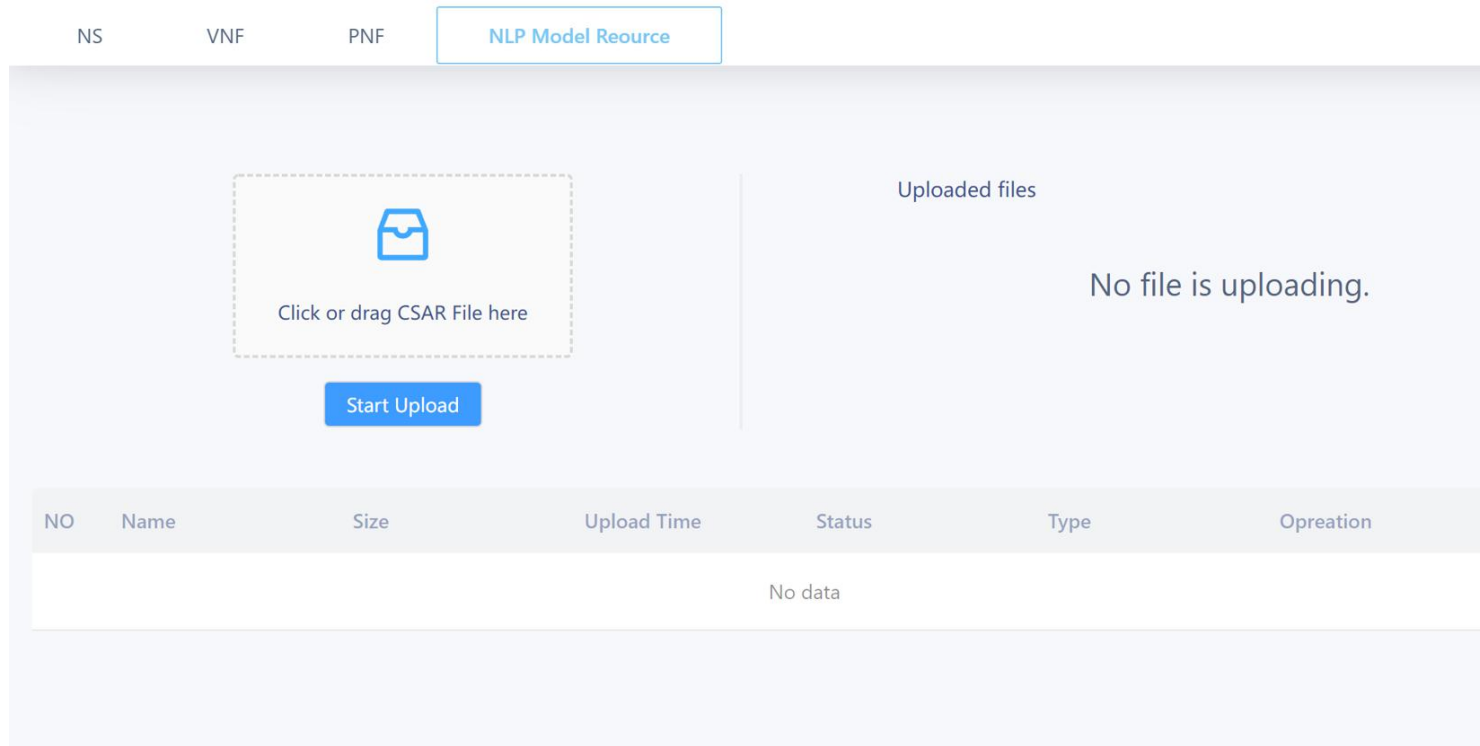
3.1 REQ-1075 Network unaware service for users

UUI

Target: translate from the human inputs to the slice parameters based on NLP in UUI, and then run the slices based on the current ONAP.



3.2 Key Features of Network Services without Perception for Users based on IBN



The screenshot shows a web interface for uploading NLP model resources. At the top, there are navigation tabs: NS, VNF, PNF, and NLP Model Resource (which is highlighted). The main area is split into two panels. The left panel contains a dashed box with a folder icon and the text "Click or drag CSAR File here", with a blue "Start Upload" button below it. The right panel is titled "Uploaded files" and contains the text "No file is uploading.". Below these panels is a table with the following columns: NO, Name, Size, Upload Time, Status, Type, and Opreation. The table is currently empty, displaying "No data".

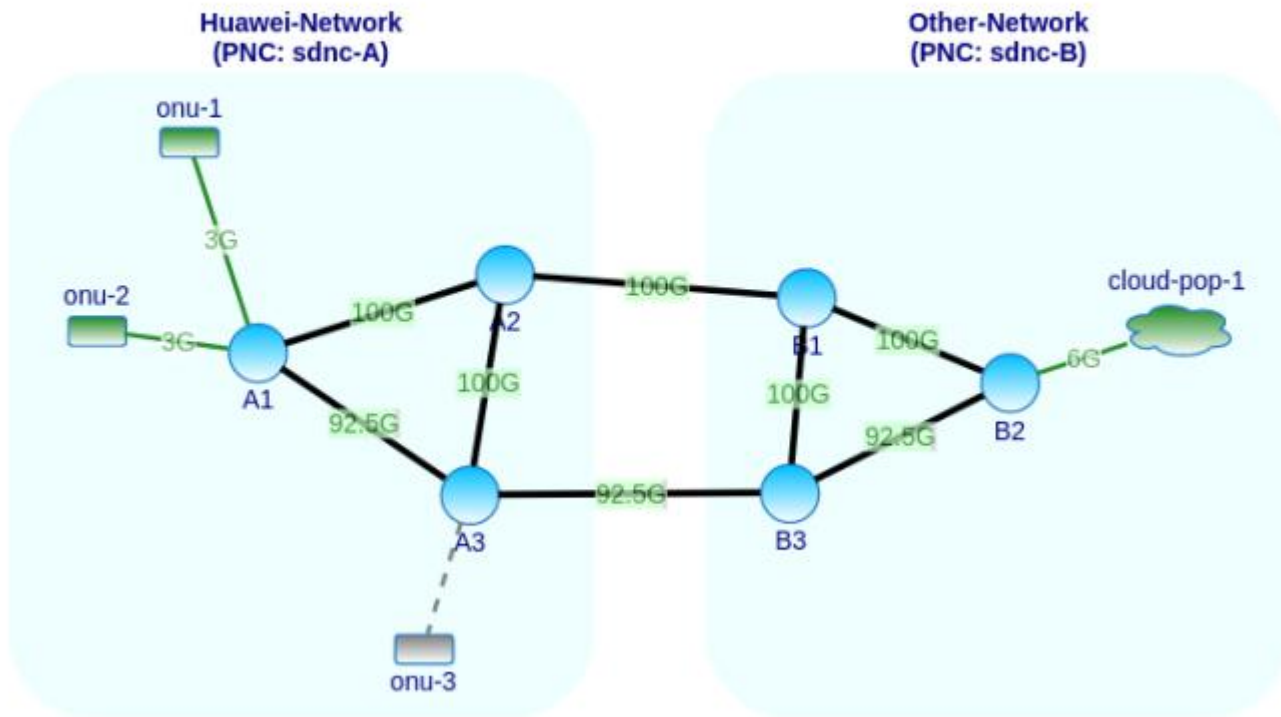
NO	Name	Size	Upload Time	Status	Type	Opreation
No data						

Key Features (Impact on UII):

1. A common user interface for CCVPN, E2E Slicing and other usecases by intent-based service;
2. A common data set for NLP training;
3. Enhancing the NLP algorithm and model for more accurate intent translation.

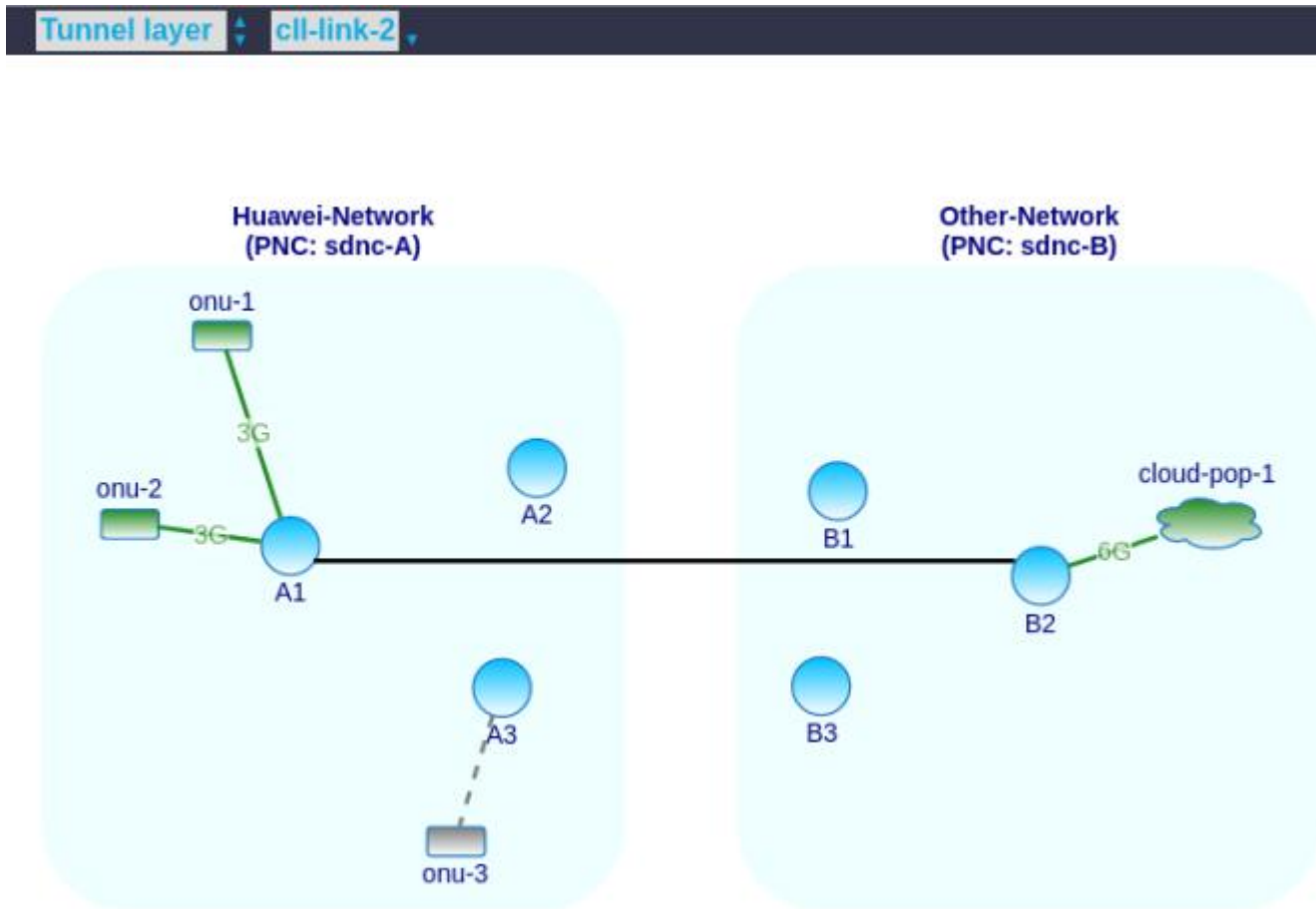
4.1 Design overview on impacted modules in Usecase UI

Link layer ^ cll-link-2 v



- Link layer view: displays underlay L1 network topology and resource utilization status.

4.2 Design overview on impacted modules in Usecase UI



- Tunnel layer view: displays installation and configuration for each OTN tunnel.

5. Key Features (Impact on UUI)

1. A common user interface for CCVPN, E2E Slicing and other usecases by intent-based service;
2. A common data set for NLP training;
3. Enhancing the NLP algorithm and model for more accurate intent translation;
4. Monitoring page (Huawei):
 - Ability to display underlay L1 network topology and resource utilization status.
 - Ability to display installation and configuration for each OTN tunnel.



ONAP

OPEN NETWORK AUTOMATION PLATFORM

Thanks!