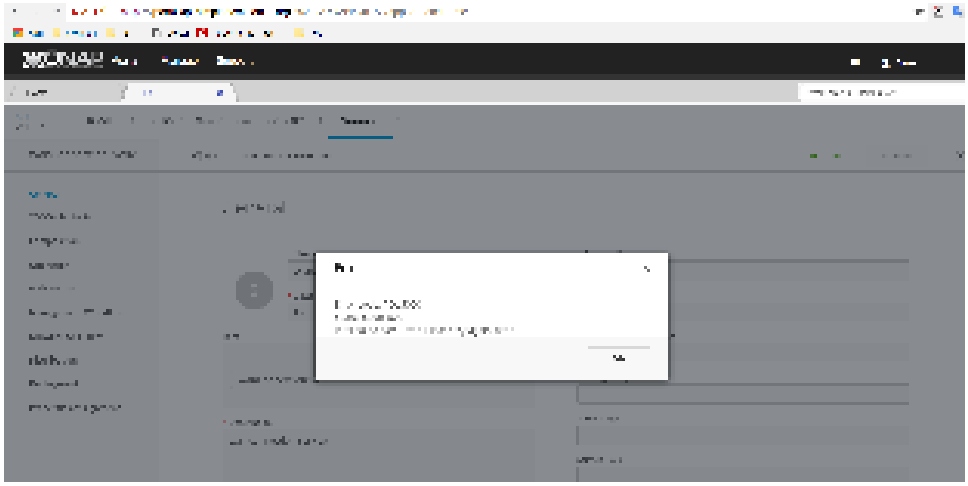
CCVPN -Test Status

TestCase ID	TestCase Name	Progress	Note(Issue Record)
	Lab infrastructure preparation: including hardware, VIMs, sotn controller, SD-WAN controller, PNFs / VNFs installation	100%	
T00001	Install ONAP and health check	100%	
T00002	SOTN Controllers Registration	100%	
T00003	SD-WAN Controllers Registration	100%	
T00004	CCVPN Resource Template Import	100%	
T00005	SOTN VPN Infra Service Design	100%	
T00006	Stie Enterprise Service Design	100%	~~SDNC-523~~ - vnf-information.vnf-id validation check should not be mandatory in validate-vnf-input DG CLOSED
T00007	Site DC service Design	100%	
T00008	SDWAN VPN Infra service Design	100%	~~SDNC-527~~ - SDWAN connectivity create failed due to empty request body for put operation during authorize tenant request CLOSED
T00009	WAN Connection service Design	100%	
T00010	SOTN Network Topology Discovery	100%	~~CCSDK-935~~ - restapicall JsonParser failed if response contains : as part of response body CLOSED
T00011	SOTN Link Management	100%	~~AAI-1925~~ - Fix EdgeRules for Casablanca CLOSED has been delivered and have been replaced in test env, need UUI team to be verified Can delete the link to external onap otn domain with manual steps, see Manual steps for CCVPN Integration Testing

T00012	CCVPN E2E Service Creation	100%	CSAR issue ~~SDC-1947~~ - csar generated in cmcc seems is not proper CLOSED so-bpmn-infra startup failed. ~~SO-1216~~ - The so-bpmn-infra startup failed in Casablanca 01 environment CLOSED AAI API issues ~~USECASEUI-183~~ - create ext-aai-network api can not accept json request CLOSED ~~USECASEUI-182~~ - create topo-network api can not use json request CLOSED ~~USECASEUI-184~~ - create pnf api can not use json request CLOSED ~~USECASEUI-187~~ - create termination point api can not use json request CLOSED ~~USECASEUI-185~~ - create link between OTN Domains api can not use json requet CLOSED SDC distribute template error with  ? Unknown Attachment ~~SDC-1955~~ - SDC distribution failed CLOSED In Pogress, This issue is being checked by Michael. ~~SDC-1958~~ - SDC Parser can not be used for CCVPN Templates CLOSED UUI can't parse the service template using SDC tosca parser, so the service creation haven't triggered by UUI For SDC-1955 and SDC-1958 which encountered during site service creation, we can avoid these blocking issue using manual steps. see Manual steps for CCVPN Integration Testing
T00013	CCVPN E2E Service Termination	100%	

T00014	Close-Loop Recovery	100%	Homles can startup following Vijay's steps Policy to SDNC has wrong url issue is fixed now : tested with correcting url in the properties file and is working fine. Testing with mock controller is success, need to check with actual controller. ~~SDNC-540~~ - CCVPN closed loop testing failed. CLOSED policy to SDNC call with "reoptimize" svc-action in "network-topology-operation" DG is overwritten. Now it is fixed and merged.

1.Introduction

This is the integration test cases for CCVPN use case.

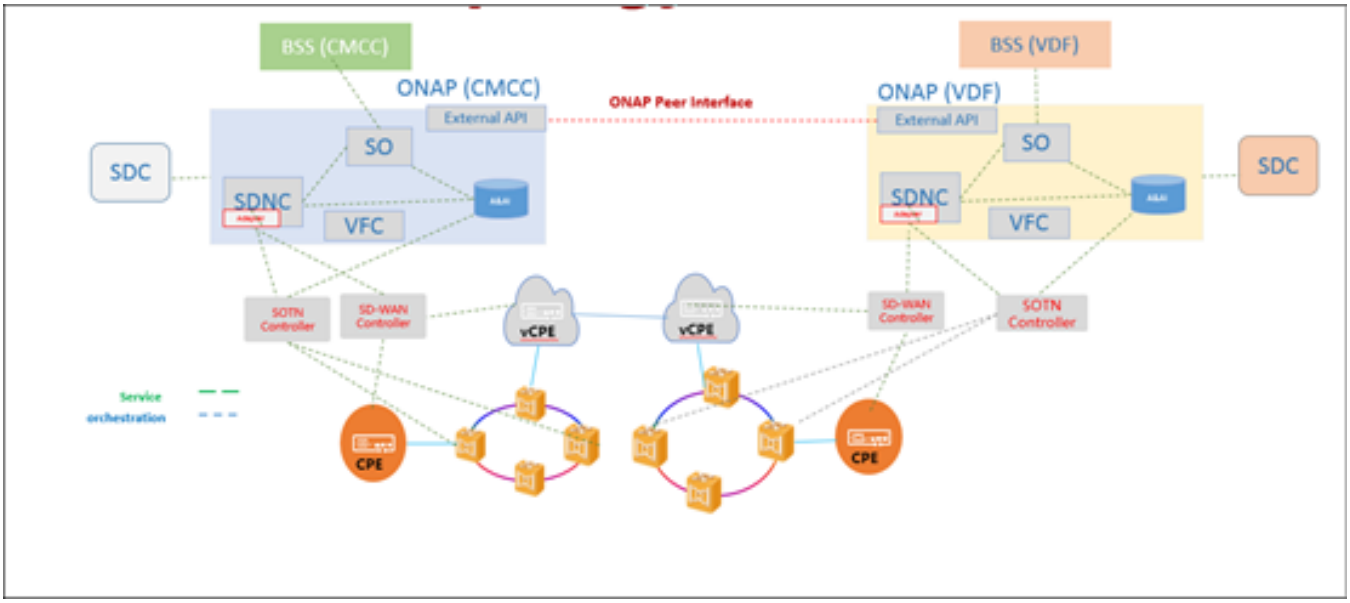
2. Scope

The integration test case for CCVPN use case, it include third party system registration, SDC design, service LCM, closed loop.

3. Terms, definitions and abbreviations

Abbreviation	Full Name
PNF	Physical Network Function
NFV	Network Function Virtualization
NFVI	Network Function Virtualization Infrastructure
SOTN	Software Defined OTN
CPE	Customer Premise Equipment
GUI	Graphic User Interface

4. Test Framework



Module introduction:

ONAP	The ONAP system for automation operation.
SOTN Controller	A third party controller for OTN network.
SD-WAN Controller	A third party controller for SD-WAN solution
Module	Function

5. Test description

The test for ONAP to SOTN choreography of the business management, business deployment environment adopting physical manual deployment patterns, ONAP not deploy work, only do business configuration and OTN PNF SOTN automatically discover functions. The network elements of this test include CPE, 3rd SOTN controller and OTN equipment.

5.1 Test Accounts

Name	Responsibility	Account
Administrator	Responsible for system management; Personnel permission configuration; ONAP external system registration; Operational life cycle management	demo /demo123456!
Designer	Service template design	cs0008 /demo123456!
Tester	Service template test	jm0007 /demo123456!
Governor	Service template approve	gv0001 /demo123456!
Operator	Service template distribution	op0001 /demo123456!

6. ONAP External System Registration Test

6.1 SOTN Controller Registration

Test No:	TEST-01
Project:	ONAP ESR
Sub Project:	3rd SDNC controller registration
Objective:	support SOTN controller registered to ESR-SDNC
Pre-conditions:	1. 3rd SOTN Controller have been installed
Test step: 1. Login to ONAP by administrator user. 2. In the ONAP esr-sdnc UI, click Register button to Register SDNC information (IP, port, authentication information, etc.) of SDNC manufacturer, click next to fill in the next page, and finally click save button to complete registration.	
Test Result: 1. We can find SOTN controller registered in ESR-SDNC portal.	
Observation: When SOTN controller registered to ONAP. Wait for minutes, SDNC will synchronize the network topology to ONAP. Please check the topology data of AAI.	

6.2 SD-WAN Controller Registration

Test No:	TEST-02
Project:	ONAP ESR
Sub Project:	3rd SDNC controller registration
Objective:	support SD-WAN controller registered to ESR-SDNC
Pre-conditions:	1. 3rd SD-WAN controller have been installed

Test step: 1. Login to ONAP by administrator user. 2. In the ONAP esr-sdnc UI, click Register button to Register SDNC information (IP, port, authentication information, etc.) of SDNC manufacturer, click next to fill in the next page, and finally click save button to complete registration.
Test Result: 1. We can find 3rd SD-WAN controller registered in ESR-SDNC portal.
Observation:

7. SDC Service Design

7.1 CCVPN resource design

Test NO:	TEST-03
Project:	SDC Service Design
Sub Project:	Resource import for CCVPN
Objective:	Support to import the resources for CCVPN.
Operator:	Designer, Tester
Pre-conditions:	1. The resources node-types for CCVPN are ready.
Test step: 1. Designer login to SDC portal. 2. Import the resources to SDC?	
Test Result: 1. The resources are imported to SDC.	
Observation: We can find new resources for CCVPN in SDC portal	

7.2 CCVPN Service Design

Test NO:	TEST-04
Project:	SDC Service Design
Sub-project:	Design CCVPN services: SOTN VPN Infra Service, Site Enterprise Service, Site DC Service, SDWAN VPN Infra, Wan Connection Service
Objective:	SDC support to design CCVPN services
Pre-condition:	1. All resources have been ready.

Test step: 1. Designer login to ONAP?click “add service” to create a service template? 2. Enter the service general parameters?including name?category?select ‘E2E service’??description?contact ID?project code etc. click ‘Create” to create service template. ‘Saved successfully’ information will be shown. 3. Enter ‘Composition’ item?select resources needed for the service. 4. Enter ‘Properties Assignment’ item?config the parameters of the resources?click ‘Declare’ button to declare the parameters of resources as service inputs. 5. Click ‘submit for testing’? ‘Submitted for testing successfully’ will be shown. 6. Tester login to ONAP?click the service to test?and then click ‘start testing’ to test the service template. After test, click ‘accept’. 7. Governor login to ONAP to approve the service template. 8. Operator login to ONAP to distribute the service template.
Test result: 1. The services for CCVPN created successfully. 2. CCVPN services distributed to A&AI and SO.
Observation:

8.Service LCM

8.1 SOTN TOPO Automatically synchronization.

Test NO:	TEST-05
Project:	Service LCM
Sub-project:	SOTN network topology synchronized to ONAP
Objective:	SOTN network topology can be synchronized to ONAP and be saved in A&AI.
Pre-condition:	1. All OTN network PNFs are ready. 2. 3rd SOTN controller is ready and the OTN PNFs have been added to it.
Test steps: 1. Administrator login to ONAP?click “AAI UI ->view & inspect”?to view the topology synchronized from 3rd SOTN controller. 2. Check the nodes of A&AI that used to save topology information.	
Test result: 1. We can find the topology data in A&AI	
Observation:	

8.2 SOTN cross-domain/cross-ONAP link management

Test NO:	TEST-05
Project:	Service LCM
Sub-project:	SOTN network topology management
Objective:	UUI can support to view the topology of network and create cross-domain/cross-ONAP links.
Pre-condition:	1. All OTN network PNFs are ready. 2. 3rd SOTN controller is ready and the OTN PNFs have been added to it. 3. 3rd SOTN controller have been registered to ONAP ESR
Test steps: 1. Administrator login to ONAP, click “UUI” to enter the use case UI. 2. Click ‘Topology management’ to manage the topology of OTN network. 3. Click ‘Add link’ to add cross-domain/cross-onap links.	
Test result: 1. We can find the topology data in UUI. To show the ONAP topologies. 2. When we add the cross-domain link , a link will be shown between different domains. 3. When we add the cross-ONAP link, a link with an ONAP icon will be shown in the portal.	
Observation:	

8.3 CCVPN Service Instantiation

Test NO:	TEST-06
Project:	Service LCM
Sub Project:	Service instantiation for CCVPN services: SOTN VPN Infra Service, Site Enterprise Service, Site DC Service, SD-WAN VPN Infra service, WAN Connection Service.
Objective:	The services for CCVPN can be instantiated and the CPEs from two different service provider can talk with each other.
Pre-condition:	1. Four services for CCVPN have been designed and distribute successful. 2. The 3rd SOTN controller and SD-WAN controller have been installed and registered to ONAP. 3. The topology of the network have been synchronized to ONAP and the links cross domain/cross ONAP have been created by UUI.
Test step: 1. Administrator login to ONAP portal?select ‘UUI-biz’ to entry use case UI. 2.Click UUI item “Services”?and select ‘Services’ Tab. 3. Select customer and service type 4. Click ‘create’ to create services. 5. On ‘Create Service’ dialog, select the service template and enter the inputs for the service. 6. Click ‘OK’ to instantiate a service. 7. We need to create the services follow the sequence: SOTN VPN Infra Service, SD-WAN VPN Infra Service, Site Enterprise Service, Site DC Service.	
Test Result: 1. All service can be created successfully.	

Observation: 1. Check the SOTN controller, we can find the SOTN EPL created. 2. Check the SD-WAN controller we can find the SD-WAN instance created. 3. Check the terminal points that connect to CPE/vCPE for OTN network, they can reach to each other. 4. Check the sites between two different ONAP, try to 'Ping' from one CPE to another, It can connect to each other. 1. For two CPEs, they can connect to each by internet or OTN special connectivity.

8.4 Service termination

Test NO:	TEST-08
Project:	Service LCM
Sub-project:	Service termination for CCVPN services: SOTN VPN Infra Service, Site Enterprise Service, Site DC Service, SD-WAN VPN Infra service, WAN Connection Service
Objective:	The services for CCVPN can be terminated.
Pre-condition:	1. Four services for CCVPN have been created successfully.
Test step: 1. Administrator login to ONAP portal?select 'UUI-biz' to entry use case UI. 2. Click UUI item "Services"?and select 'Services' Tab. 3. Select customer and service type 4. Select service and click 'delete' to delete services. 5. Click 'OK' to terminate a service. 6. We need to delete the services follow the sequence: Site DC Service, Site Enterprise Service, SD-WAN VPN Infra Service, SOTN VPN Infra Service.	
Test Result: 1. All service can be deleted successfully.	
Observation: 1. Check the SOTN controller, we can find the SOTN EPL deleted. 2. Check the SD-WAN controller we can find the SD-WAN instance deleted. 3. Check the AAI in two ONAPs, all services for CCVPN are deleted.	

9. Closed Loop

Test NO:	TEST-09
Project:	Closed Loop
Sub-project:	Closed Loop in ONAP SOTN link
Objective:	ONAP can find SOTN network cross domain link interruption automatically, and rebuild SOTN business automatically.
Pre-condition:	1. All elements of OTN network TOPO environment has been completed. 2. CCVPN services have been created and bussiness is working fine.
Test step: 1. Interrupt the cross domain link in the CMCC side ONAP manually.	

Test Result: 1. Closed-loop triggered automatically, SOTN link will be recreated through another cross domain link.
Observation: 1. Check all the CCVPN services are work fine as in “CCVPN Service Instantiation”