Change Management Frankfurt Extensions

- R6 USE CASE OBJECTIVES
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R6 USE CASE OBJECTIVES

1. Traffic Distribution workflow enhancements **REQ-187** - Getting issue details... STATUS
   REQ-191 - Getting issue details... STATUS
   a. Build Traffic Distribution Use Case Extensions to merge Traffic Distribution with In Place Software Upgrade (Workflow as Python Script and APPC as LCM/Ansible executor) **INT-1276** - Getting issue details... STATUS
      REQ-187 - Getting issue details... STATUS
   b. APPC extensions for seamless Ansible LCM execution on vf-module, vnfc and v-server level
      APPC-1728 - Getting issue details... STATUS **REQ-191 - Getting issue details...** STATUS
   c. Scripts for Automation of APPC Ansible Workflows [Stretch] **APPC-1728** - Getting issue details... STATUS
      REQ-191 - Getting issue details... STATUS
2. vFW K8S support in CDS (**INT-1184** - Getting issue details... STATUS and **REQ-182** - Getting issue details... STATUS)
   a. Modifications in vFW K8S helm charts to make them compatible with CDS blueprints
   b. Modifications in vFW CDS blueprint to make it worksing with vFW K8S Helm charts
   c. Modifications in Multicloud for creations of K8S instance profile base on information from CDS
   d. Modifications in CDS required for creation of K8s profile by CDS itself
   e. More details: Integration with CDS
3. Change management schedule optimization algorithm enhancements
   a. Support wide variety of constraints
   b. Policy-enabled
   c. Enable modular and dynamic composition of policies/constraints
4. 5G PNF Software upgrade - the PNF support U/C Wiki: PNF SOFTWARE UPGRADE in R6 Frankfurt
5. Workflow Designer Enhancements (SDC)
   a. Remove workflow from Model/CSAR, make it an independent artifact & distribute workflow as an independent artifact (include allowing user to associate workflow to resource model via a reference).
   b. Enhance Workflow Designer to support Service Level workflows.

BUSINESS DRIVER

Executive Summary - Enable automated, flexible and safe design, scheduling and execution of change activities across the network for physical and virtual network functions.

Business Impact - This will enable significant improvement of operational efficiencies and minimizing the risk of service impact during change deployments across the network.

Business Markets - Applicable to physical and virtual network functions deployed in large operational networks - cellular service (4G/5G), cloud service and data center networks.

Funding/Financial Impacts - Potential of significantly reducing the OPEX.

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
AAI	James Forsyth		

APPC	Takamune Cho	**APPC-1728** - Getting issue details... STATUS	1. Delivery of "vFW Software Upgrade and Traffic Distribution" Use Case transfromed from "vFW Traffic Distribution Use Case" 2. APPC extensions for seamless Ansible LCM execution on vf-module, vnfc and v-server level 3. Automation of APPC configuration for Ansible [Stretch]
CLAMP	Gervais-Martial Ngueko		
OOF	Shankaranarayanan Puzhavakath Narayanan		
Policy	Pamela Dragosh		
SDC	Ofir Sonsino	Wish List - No US/Epic	1. Make Workflow Independent Artifact 2. Enhance WFD to support Service Level Workflows
SDNC	Dan Timoney		1. Delivery of "vFW K8s Use Case" Integrated with CDS - modification in CDS required for K8s workflow support
SO	Seshu Kumar Mudiganti	Wish List - No US/Epic	1. Workflow as Independent Artifact 2. Support Service Level Workflows
VID	Ofir Sonsino	Wish List - No US/Epic	1. Support Service Level Workflows
VNFR QTS	Steven Wright		
INT		1. **INT-1184** - Getting issue details... STATUS 2. **INT-1276** - Getting issue details... STATUS	1. Delivery of "vFW K8s Use Case" Integrated with CDS: Helm charts and CDS blueprint 2. Delivery of "vFW Software Upgrade and Traffic Distribution" Use Case transfromed from "vFW Traffic Distribution Use Case"
MULTI CLOUD	Benjamin Cheung	1. **INT-1184** - Getting issue details... STATUS	1. Creation of K8S profile base on the input from CDS. The profile will be created by Multicloud component just before the instantiation of vFW "VNF"

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

SDC

Make Workflow Independent Artifact	Remove the Workflow BPMN from the resource model (in CSAR) and make it an independent artifact. The workflow needs to be distributable as an independent artifact without changing the major model version. SDC to allow a user to associate the independent WF artifact to any SDC model. The model will reference the workflow using a reference. May require revamping SDC model versioning to include a minor version component so that administrative changes to a model do not change the major version number which requires a re-spin.
Enhance Workflow Designer (WFD) to support Service Level Workflows	Enhance WFD to create workflows that operate at the service level. The workflow developed defines the order and specific resources to be updated and allows the user to create a workflow to perform the required changes. Changes may include SW Updates, configuration changes. Service level workflows are to be treated as Independent artifacts and associated with service model via a reference. Composition of the workflow may involve sequential and/or parallel processing.

SO

Workflow as Independent Artifact	Modify acceptance of WF distribution as an independent artifact and store it. Interpret WF association within the resource model and be able to pull the independently stored workflow upon execution request for the resource model. Recognize the new distribution of the model where the major version number did not change but a minor version has and therefore needs to stored. Enhance process for pulling the list of native workflows and those associated with the resource model via a reference to the independent WF artifact and provide VID with the list as is done today.

Support Service Level Workflows	Enhance Northbound SO interface to specify Service Level workflow requests with additional parameters that are resource specific. Enhance execution engine, error (aka rainy day) handling and Northbound status reporting to support service level workflows. Execution of the workflow may involve parallel processing of service components (resources).

VID

Enhance UI to support Service Level Workflows	Enhance the VID interface to support workflows that operate at the service level. Allow user to select service types and specific services that are first filtered and pulled from inventory. Ensure design minimizes latency when obtaining the list of service instances (employ filtering). Ensure user friendly filtering and service instance selection at the UI. VID to display Service level workflows and accept required parameters to be passed to SO (VID-SO interface enhancements required). Enhance UI to allow user to enter resource specific parameters and to display service level workflow status (may require status for parallel workflow branches or resources). Provide ability to continue or abort a workflow that is in an error state (may require ability to continue/abort parallel branches or service resources).

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