Impacts for Scaling (Frankfurt)

- Goal: Auto VNF Configuration (Frankfurt)
- Goal: Manual Scaling Multiple Instances (Future)
- Goal: Scheduling of Manual Scaling (Future)
- Goal: Homing and Capacity Check (Future)
- Goal: Pre and Post Action Signaling to VNF (Future)
- Goal: Manual and Automatic Scale In (Future)
- Goal: Controller_Type Lookup (Future)
- Goal: Support for TOSCA Orchestration Model (Future)

Goal: Auto VNF Configuration (Frankfurt)

This goal is about using CDS in place of CDT so that we can move to a more automated configuration process rather than having to preload information into CDT and then sending pointers to that information through VID and SO to APPC/SDNC.

APPC

- SDNC
 - Adopt CDS for use in Auto
 - Change ConfigScaleOut to support Auto Configuration
- Change APPC/SDNC API usage to adopt Auto Configuration
- Change Controller table in SO to point to CDS

SO

- · Adopt CDS for use in Auto Configuration
- Change ConfigScaleOut to support Auto Configuration



Goal: Manual Scaling Multiple Instances (Future)

Manually instantiate multiple instances of the same VF_Module with a single action

SO

VID

- ٠ Change Scale Out Request API to include number of instances to scale
- Create workflow that will add the correct number of instances received from VID
- Add field in Scale Out Screen to
- allow multiple instances for scaling
- Update Scaling Call to SO to include
- the number of instances

Goal: Scheduling of Manual Scaling (Future)

Allow for a manual scaling action to take place in the future

OOF

VID

- Integrate Scaling actions with Scheduler
- Integrate Scaling actions with Scheduler

Goal: Homing and Capacity Check (Future)

Check with OOF to ensure there is enough capacity to home the resources before the resources are requested from the platform

OOF

SO

- Support a Homing and Capacity Check Function (Priority: 4)
- Call Homing and Capacity API on OOF (Priority: 4)

Goal: Pre and Post Action Signaling to VNF (Future)

Create signals to the VNF before an action takes place and after an action is completed so that the VNF can prepare for the action and then run checks or finalize setup after the action is complete.

APPC

SDNC

- Pre Action phase for Scale Out (Priority: 3)
- Post Action Phase for Scale Out (Priority: 3)
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- Post Action Phase for Scale Out
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- Add pre action phase to Scale Out Workflow (Priority: 3)
- Add Post action phase to Scale Out Workflow (Priority: 3)

Goal: Manual and Automatic Scale In (Future)

APPC

- ConfigScaleIn (Priority: 1)

 APPC will support a new
 - AFPC will support a new
 LCM action ConfigScaleIn
 APPC will need to support accepting a new
 - ConfigScaleIn request from MSO • APPC will accept the payload sent from MSO. Included in the request will
 - be the VF Module ID to be removed.
 APPC will send the
 - ConfigScaleOut request to the VNF via REST API
- Pre Action Phase (Priority: 3)

 Need to decide what tasks we will execute in this phase so that we can write the requirements "How"
- Post Action Phase (Priority: 3)
 - Need to decide what tasks we will execute in this phase so that we can write the requirements "How"
- Distribute_Traffic (Priority: 1)

 APPC will accept and process a DistributeTraffic request
 - from MSO via DMaaP • DistributeTraffic action will be enhanced to specify a VM as the target
- Quiesce_traffic for VNFCs (Priority: 1)
 APPC will accept and process a QuiesceTraffic request from
 - MSO via DMaaP['] • QuiesceTraffic action will be enhanced to specify a VM as the target

CLAMP

- Scale In Closed Loop (Priority: 2)
- Guard Policies (Priority: 2)

DCAE

- Scale In Trigger (Priority: 2)

 Support creating a Threshold Alert (TA) when capacity needs to be reduced
 - Send the TA to Policy

OOF

- Scale In Target (Priority: 2) Policy
 - Scale In Policy (Priority: 2) ° Support sending Operational Policy request
 - Operational Policy request via DMaaP to SO
 Create Operational Policy
 - for a Scale In Request
- Guard Policies (Priority: 2)
 Accept Guard Policy from CLAMP for Scale In operations.

SDC

- Import Scaling Building Blocks to Catalog (Priority: 3)

 Add Scale In Building Block
 - Add Scale In Building Bloc to SDC Catalog
 Add any new BB (TBD
 - based on finalized Scale In flow) to the Catalog
- ability to build scaling workflows (Priority: 3)

SDNC

- ConfigScaleIn (Priority: 1)

 SDNC will support a new
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 - LCM action ConfigScaleIn
 SDNC will need to support accepting a new ConfigScaleIn request from
 - MSO SDNC will accept the payload sent from MSO. Included in the request will be the VF Module ID to be removed.
 - APPC will send the ConfigScaleOut request to the VNF via REST API
- Pre Action Phase (Priority: 3)
 Need to decide what tasks we will execute in this phase so that we can write the
- Post Action Phase (Priority: 3)
 Need to decide what tasks we will execute in this phase
- so that we can write the requirements "How" Distribute_Traffic (Priority: 1)
- Distribute_Traffic (Priority: 1)

 SDNC will accept and process a
 Distribute Traffic request
 - from MSO via DMaaP
 Distribute Traffic action will be enhanced to specify a VM as the target
- Quiesce_traffic for VNFCs (Priority: 1)

SO

SO

- Scale In Workflow (Priority: 1) • Support a new Scale In
 - Building Block.
 Support a sending and receiving messages from Policy and VID via DMaaP
 - Accept a Closed Loop (Policy) or Open Loop(VID) request to Scale In a module
 - Support sending a Scale In Request to the Controller. This request will include the VF-Modules/VM(s) that will be deleted
- Support Pre Action Phase (Priority: 3)
 Support Post Action Phase (Priority:
- Support Post Action Phase (Priority: 3)
- Call ConfigScaleIn API on controller (Priority: 1)
- Call DistributeTraffic
 - Action. (Priority: 1) • Enhance the DistributeTraffic action at a VM level and send to the Controller. This assumes that the action has been implemented and tested in Casablanca release. The necessary config parameters will be passed with the request to the Controller
- Call QuiesceTraffic (Priority: 1)

VID

- UI enhancements (Priority: 1)

 Support new field to specify which VM(s) to remove in the Scale In Request to SO
 - Is VID going to call policy to determine which VM to remove or will a user enter the information on the GUI
 - Support Common DMaaP interface to send request to SO

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 SDNC will accept and process a QuiesceTraffic request from MSO via DMaaP
 QuiesceTraffic action will be enhanced to specify a VM as the target

Goal: Controller_Type Lookup (Future)

so

• Utilize new Controller_Lookup Function (Priority: 4)

Goal: Support for TOSCA Orchestration Model (Future)