

Scaling Use Case (Frankfurt)

Requirements Tracking Jira:  [REQ-42](#) - Scaling (Frankfurt) DONE

Overview

One of the primary advantages of a virtualized cloud infrastructure is the ability to maximize resource utilization. In a PNF environment, resource allocation is relatively static and therefore enough capacity needs to be available for peak loads. This leads to many inefficiencies during normal operating times. In the software controlled environment of virtualized resources, ONAP can allocate resources to a VNF as they are needed. Scaling is the process utilized by ONAP to change the amount of resources allocated to a VNF

Goals

Frankfurt Goals

This is the set of goals that has been committed by the PTLs for the Frankfurt Release

1. [Auto VNF configuration](#) (Tech Mahindra)
2. **Ansible support for Scaling**
3. **ConfigScaleIn Action**

Future Goals

This set of goals did not make the funding list for Frankfurt. We will attempt to do these in the G Release

1. [Scaling by multiple instances](#)
2. [Scheduling of Manual Scaling](#) (Not ready for Frankfurt)
3. [Homing and Capacity Check](#)
4. Robust healthcheck
5. Complex post instantiation configuration
6. [Pre and Post Action signaling to VNF](#)
7. [Manual Scale In \(Manually remove instances of a VNFC\)](#)
8. [Auto Scale In \(Automatically remove instances of a VNFC\)](#)
9. [Architecture approved Controller_Type Lookup](#)
10. [Support TOSCA Based VNFs](#)

Business Requirement

Executive Summary

Dynamic scaling gives an operator the tools it needs to maximize efficiency of the resources dedicated to the cloud. Through the Scaling Use Case, ONAP's control environment allows it to assign resources where they are most needed and reallocate them when they are needed by different VNF. This allows the cloud environment to achieve a much higher resource utilization level than the old data centers it is replacing.

Business Impact

Enabling dynamic resource allocation through Scale Out and Scale In will greatly increase the efficiency of the Cloud Platform. This will be one of the key methods for meeting the cost savings that Cloud Platforms have promised Service Providers.

Business Markets

This Use Case will be important to any provider that is trying to maximize its use of limited resources on a cloud platform

Funding/Financial Impacts

Presentations

[VNFC Configuration in Frankfurt](#) (Lukasz Rajewski)

Flow Diagrams

Roadmap

Scaling Use Case Team Meetings

Meeting Logistics

Weekly Scaling Meeting

Day: Tuesday

Time: UTC 1400 / China 2200 / Eastern 0900 / Pacific 0600

URL: <https://zoom.us/j/457158496>

Meeting Minutes

Impacts

Project Commitments

Project	Impact	PTL	Commitment	Notes
CCSDK /CDS	Test Only	Dan Timoney Yuriy Malakov	COMMITTED	Auto Post-Instantiation Configuration of VF_Modules
APPC	Complex	Takamune Cho	COMMITTED	Ansible Support of Scaling New ConfigScaleIn Action
SO	Moderate	Seshu Kumar Mudiganti	COMMITTED	CDS Actor Selection for Scale Out Use case (TechM)

This use Case has the potential to significantly reduce CAPEX

Organizational 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

Participating Companies

AT&T, Ericsson, Nokia, Tech Mahindra

Scope