Scaling Use Case (Dublin)

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

Dublin Goals

In priority order:

1. **Model Driven Control Loop Design**
2. **Further automation Scaling Use Case (Tech Mahindra)**
    a. **Eliminate the need to manually enter a Dummy VF_Module**
    b. **Fix Naming Policy Issues**
    c. **Simplify CLAMP Scale Out Screen.**
3. *Manual Scale In (Manually remove instances of a VNFC)*
4. *Auto Scale In (Automatically remove instances of a VNFC)*
5. *Auto VNF Configuration*
6. *Updates to Manual and Auto Scale Out*
7. *Homing and Capacity Check*
8. *Architecture approved Controller_Type Lookup*
9. *Support TOSCA Based VNFs*

Bold projects have been approved for Dublin. *Italicized projects have been pushed to a future release*

Business Requirement

Dynamic scaling gives an operator the tools it needs to maximize efficiency of the resources dedicated to the cloud. 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.

Past releases of ONAP have developed the capability of adding additional resources (VMs/VF_Modules) to a VNF as the demand for the VNF grows. In the Dublin release we will add the capability to reduce the number of resources (VMs/VF_Modules) assigned to a VNF so that those resources can be used by other VNFs as needed.

Participating Companies

AT&T, Ericsson, Nokia

Scope

Past releases of scaling have consistently added a lot of functionality. In the Dublin Release, the Scaling Use Case will focus on hardening the current functionality and make it easier to add future capabilities.

In the Dublin timeframe the Scaling Use Case team will partner with the Closed Loop Subcommittee to focus our resources on Service Assurance and the Closed Loop.

Scaling Use Case Presentations

Dublin Scaling Proposal 181210.pdf

Closed Loop Design Proposal for R4

How to run the Scaling Use Case in Dublin Release

Scaling Use Case Team Meetings

For Dublin we will be using both the weekly Scaling call as well as the weekly Closed Loop call to progress the Scaling Use Case.

Meeting Logistics

Weekly Scaling Meeting

Day: Tuesday

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

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

Weekly Closed Loop Subcommittee Meeting

Day: Wednesday

Time: UTC 1500 / China 2300 / Eastern 1000 / Pacific 0700

URL: https://zoom.us/j/872748904

Meeting Minutes

Impacts

Project Commitments

Project	PTL	Commitment	Notes
CLAMP	Gervais-Martial Ngueko	COMMITTED	Tech Mahindra Resources
Policy	Pamela Dragosh	COMMITTED	Tech Mahindra Resources