SD-WAN over 5G Use Case (El Alto)

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Status	Choose One: DRAFT
Submitter	
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Proposed Release	*Dublin Release*
JIRA Ticket(s)	

Abstract

Companies are currently investing billions into 5G technologies all around the world, yet there are presently few use cases for how to utilise 5G to create new services and ultimately generate revenue to account for this large initial investment. The proposal of SD-WAN over 5G provides a plausible new service using 5G that can produce revenue to justify the business investment, SD-WAN provides seamless connectivity for multi-cloud environments and connects enterprise networks - including branch offices and data centres - over large geographic distances.

Rationale

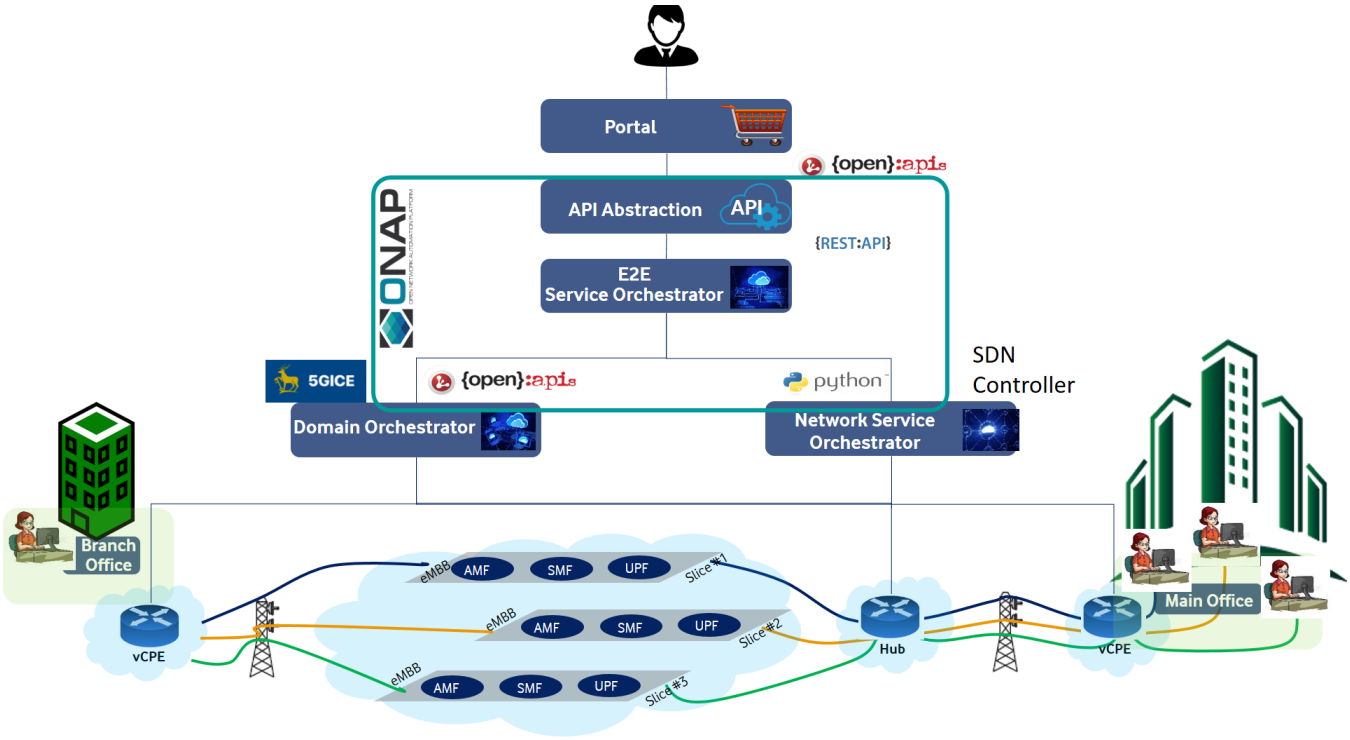
The business objective of the 5G program is to create new services & generate revenue for 5G / 5G Automation through demonstration of use-cases. SD-WAN is a proposal use case for how we can utilise 5G for creating new services. To prove that the new 5G network is keeping up to its requirements, we can apply this use case to provide a real-world scenario of what the 5G network can be used for.

We wish to use ONAP for our SD-WAN so by including this use case as a proposal, we can prove our 5G fixed wireless access works using ONAP. By submitting the use case to ONAP we hope to match our business needs as well as help contribute to ONAP with our own working code.

Proposal

For our 5G Fixed Wireless Access, we will have an SD-WAN running on our network. For the use case, we will be purchasing a service from Vodafone's Portal and the SD-WAN will be able to send the request through the network to apply for the order.

• SD-WAN will use 5GICE middleware for underlay.
• SD-WAN will be provisioned as hub-spoke topology.
• 5GICE will provide TMF based Service Order APIs to provision underlay.
• Demo setup will include WAN links and LAN link for hub and spoke.



MOVING TO EL ALTO

Note from Atul Purohit (Wed Jan-16, 2019):

When we started putting this use case together, the understanding we had (for 5G) is going through a whole lot of changes, 3GPP's 5G specs in run up to R16 itself is completely changing to SBA oriented architecture and that changes the modelling thinking that we had. Plus the use cases for D for 5G are trying to mature ONAP for PNFs and Core / Radio components of 5G – a services play would come in on top imminently and in next release we would presume. We have also partnered with University of Surrey (we have invited them to take LFN membership, and they are) and will perhaps work with Nokia to progress this use case, but for Release D, I think we are a bit pre-mature. We would strengthen the use case with some additional bits (on IoT / SDWAN over 5G) that we have learned and come back in Release E. Would it be possible to omit this use case from Wiki page ? we will create another one targeted for Release E very soon.

References

Links to any additional resources referenced in or related to this proposal.