



DevOps based service orchestration in 5G virtualised Networks

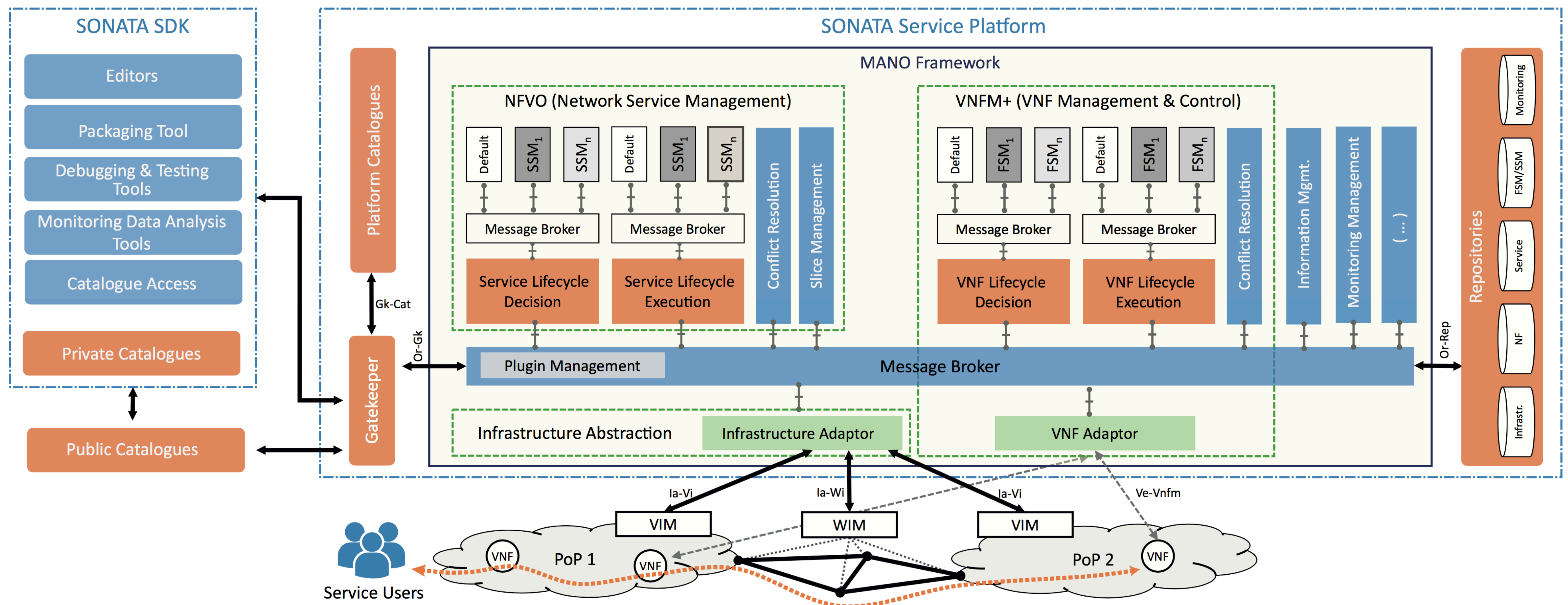
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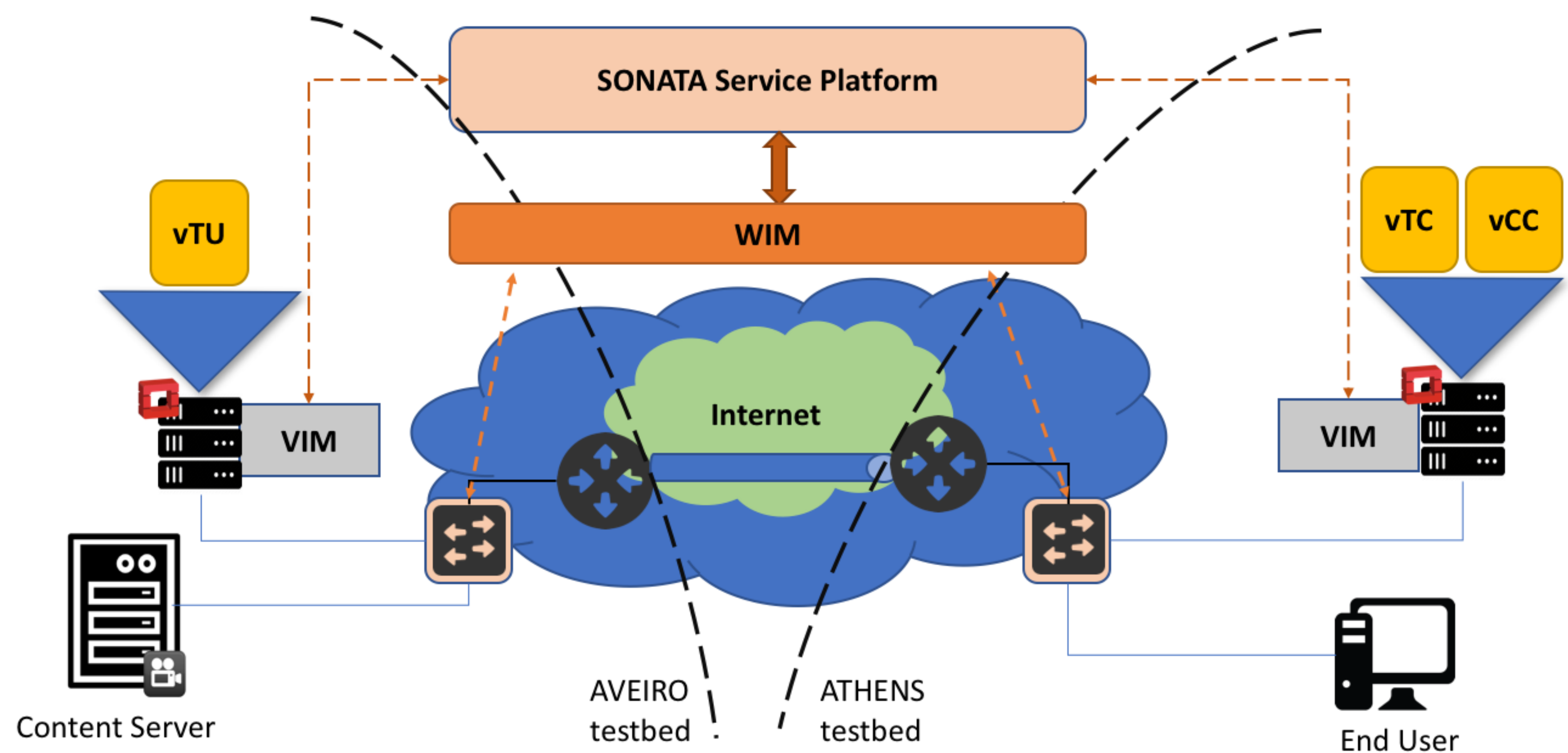
Architecture



Overview

- SONATA architecture extends the ETSI MANO specifications by introducing flexibility and agility
- Service Platform: orchestration entity responsible for the deployment and operation of the vCDN network service
- At NFVO level Service Specific Manager (SSM) is introduced
- SSM empowers third-party service developers with control over specific orchestration and management functionalities over their own service
- VNFM extended by the Function Specific Manager (FSM)
- FSM provides flexibility via customisable platform functionality and ability to add new features
- These components enable the developer to alter the default lifecycle operations or trigger new algorithms

Demonstration



Scenarios

- vCDN mode: Content originates from a content provider across the vCache and delivered the subscriber:
 1. The NS is instantiated by the SP on top of the already provisioned network slice
 2. The VNFs (vTC, vCC, vTU) are instantiated
 3. SFC is established and traffic from the content servers is now passing through the deployed VNFs
 4. Content is now received on end users' terminals
- QoE enchantment: extension of the vCDN service including a DASH transcoding unit.
 1. User requests a content format or quality that is not available
 2. vTC forwards request to the vTU
 3. vTU transcodes the content based on the user request and is made available to the server
 4. Upon new request for the new content format the content server streams the content to the user

