IMT-2020/5G Workshop and Demo Day

Geneva, Switzerland, 11 July 2017

Network Slicing Controller Suite Multi-Tenant Slicer Demo

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Cloud Native Transport for Next Gen

Table Stakes

- VNFs + PNFs
- Resource Abstractions
- Smart Pluggables
- Source Routed Flows
- Deterministic Flows
- Resource Isolation
- Cattles. Not Pets

Differentiation

Slicing Intelligence
(Per CP, UP-UL, UP-DL)

Dynamic Re-routable Capacity

Content-Awareness Overlays

Life Changing

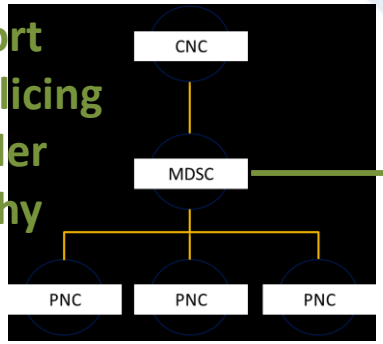
- Flexible Network Policy Manager
- Machine Learning Driven Policy Decisions
- Self Running Networks

Transport Network Slicing Key Aspects

Transport Network Elements Data Plane Techniques

Abstraction & Network Exposure Data Models

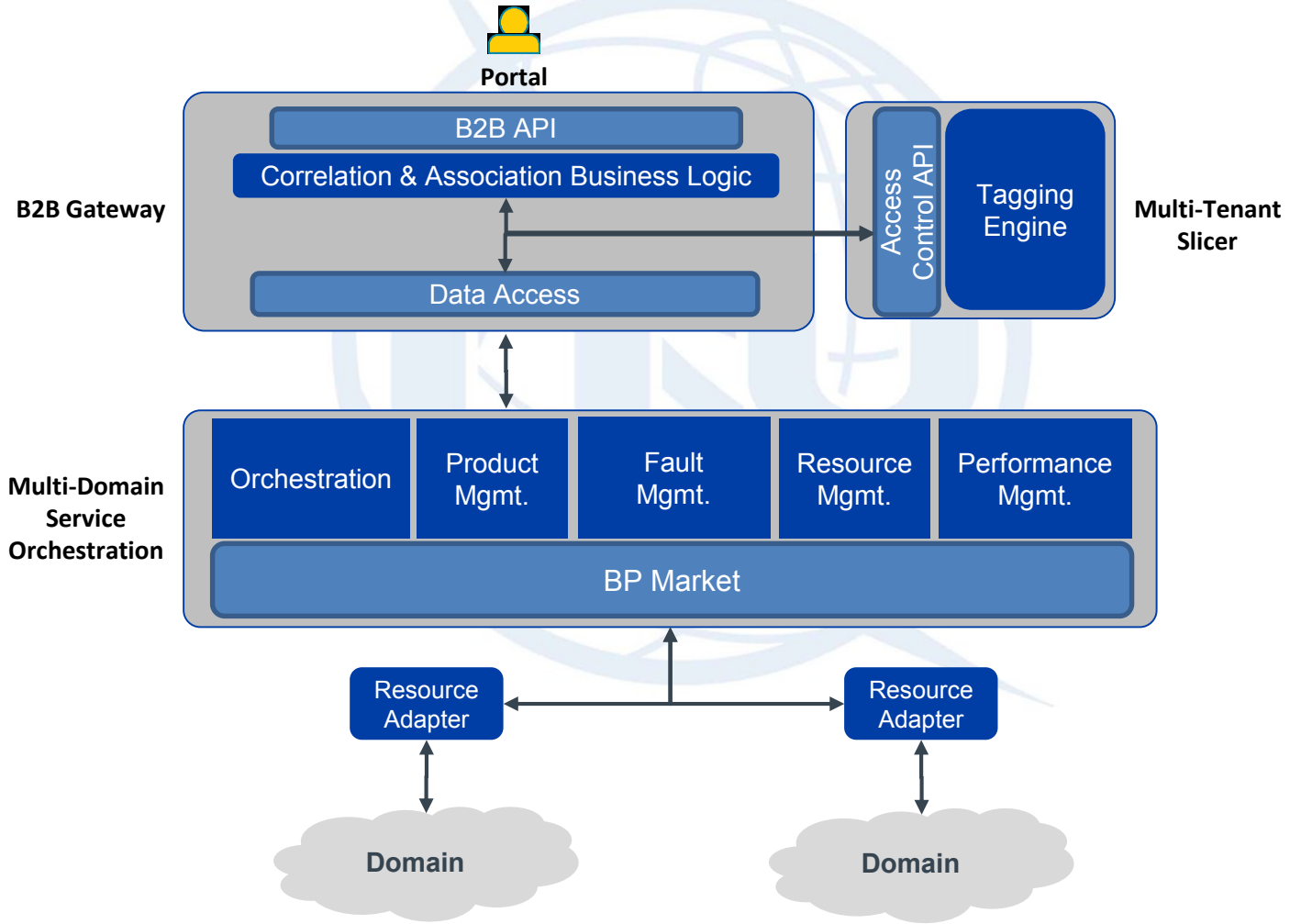
Transport Network Slicing Controller Hierarchy



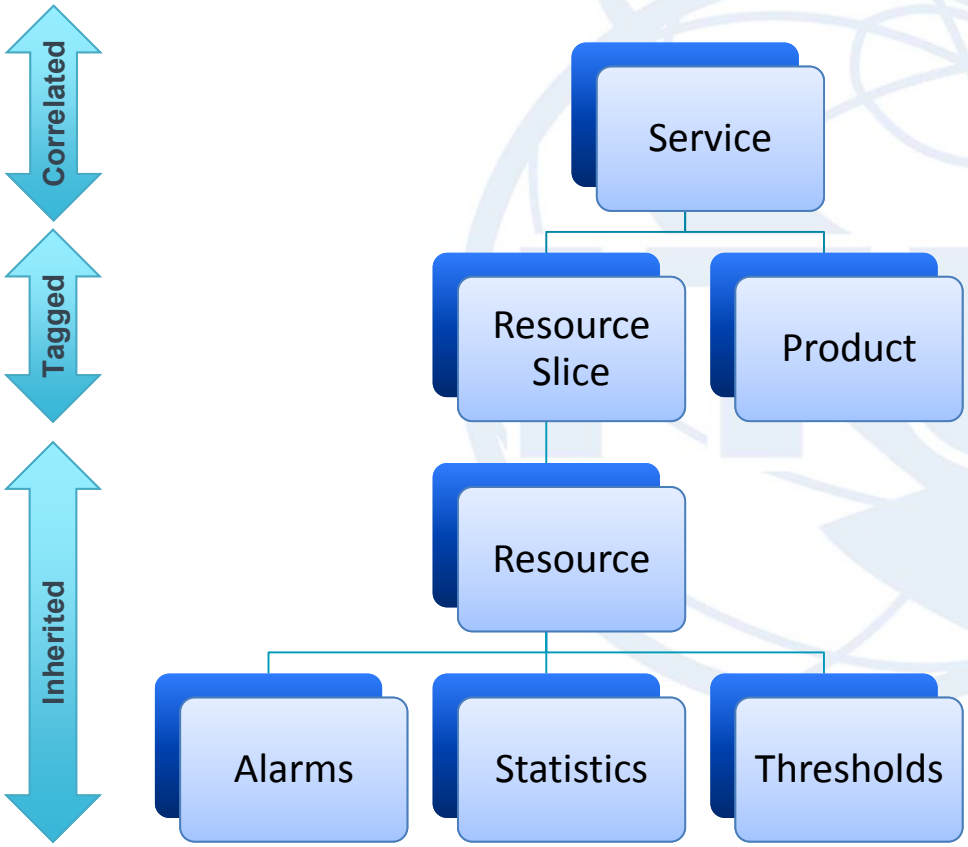
Cloud Services-based Network Slice Template

Our Definition: A Network Slice is a set of interconnected network resources (virtual or physical) that constitute a network instance specific to a particular service

Multi-Tenant Slicer Component Overview



Information to Tenant Assignment



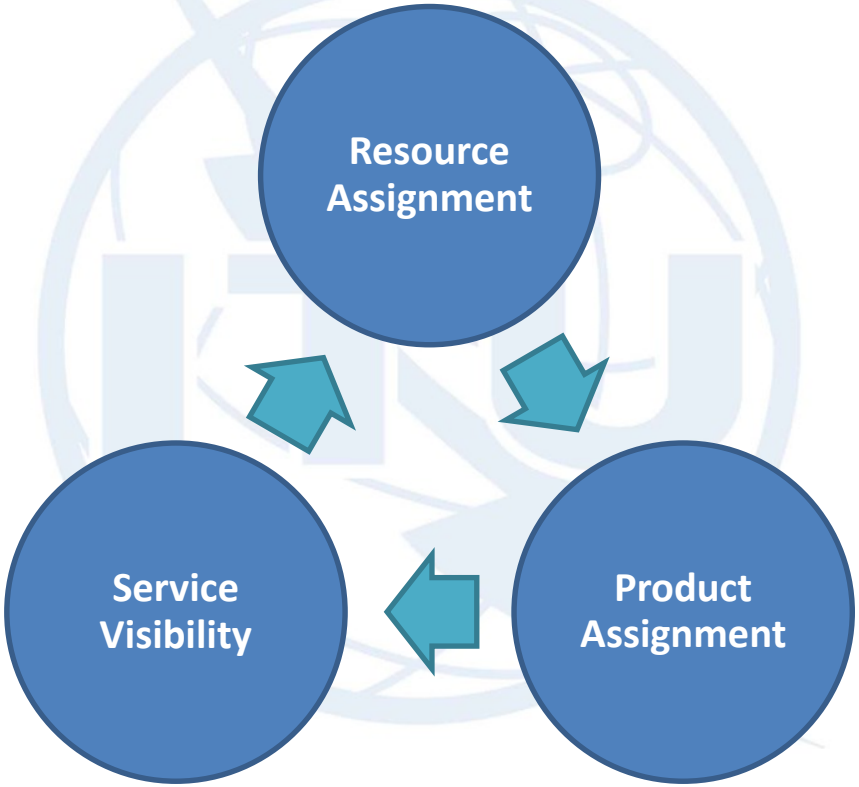
BluePlanet Terminology:

Resource: BP Entity instance that can represent a Network or a Function construct (EndPoint, Connection, VirtualMachine, E2E Service)

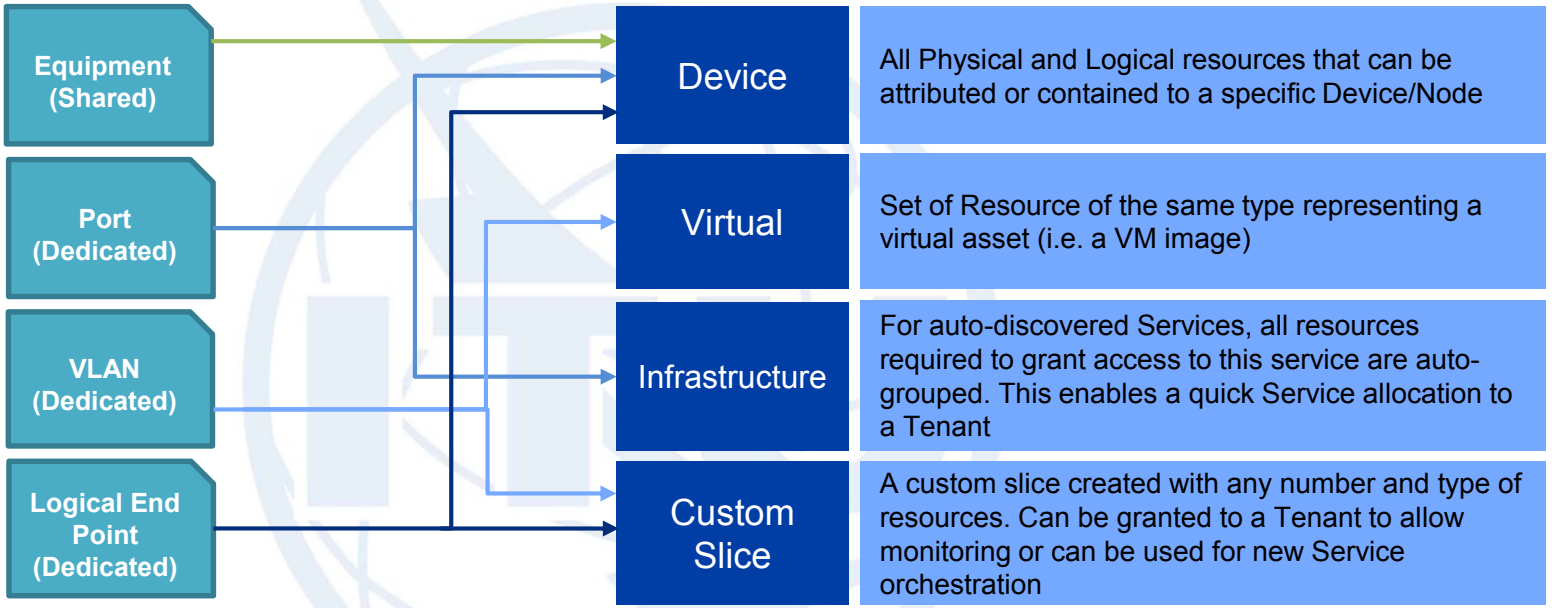
Service: Multiple Resources can come in play and get Orchestrated to create a higher-order Resource. This high-order Resource is a Service

Product: For Resources to be Orchestrated into a Service, definition "Product" needs to be on-boarder. It defines how those different Resources interact and contribute to the creation of the Service

Network Segmentation/Slicing



Resource Slicing



Rules

- Any Resource can be assigned to one or more Slices
- Each Resource has a sharing policy: Dedicated or Shared
- A single Resource Slice can be further sliced and shared with a child Tenant
- Once a Slice, containing a “dedicated” Resource, is assigned to a Tenant, this Slice or any other containing the same Resource cannot be assigned to a peer Tenant

Live Demo