What is a Customer Service Model?

Qin Wu
Motivation:

• Clarify what a service model is not, and dispells some common misconceptions.
• Distinguish how the service is delivered from how the service is presented to the customer
Terminologies

**Network Operator:** a company who owns a network that provides internet connectivity and service.

**Customer:** Someone who purchase connectivity and other service from a network operator, e.g. the one who operate enterprise network or data center

**Service:** A service is some form of connectivity between customer sits and the Internet or between customer sites across the network operator’s network and across the Internet.

**Data Model:** model managed objects at a lower level of abstraction and include more details about managed objects.

**Service Model:** a specific type of data model and describe basic and core service characteristics parameters in a network agnostic way. It can be used by human or a software component to configure or request a service.
What is a “Customer Service Model”?  

• General reference in draft-wu-opsawg-service-model-explained
  • Builds on other IETF work
    • draft-ietf-l3sm-l3vpn-service-model
    • draft-ietf-netmod-yang-model-classification
    • draft-wen-l2sm-l2vpn-service-model

• Used to describe a service as offered or delivered to a customer by a network operator

• Expressed as a core set of parameters that are common across network operators
  o Additional features that are specific to the offerings of individual network operators would be defined in extensions or augmentations of the model.

• Can be used by a human (via a user interface such as a GUI, web form, or CLI) or by software (automation)
  o To configure or request a service

• May equally be consumed by a human (such as via an order fulfillment system) or by a software component (service orchestration)

• Drives requirements for service delivery models so that the customer service parameters can be mapped into inputs used by the protocol configuration models
Service Model In Context

- Customer Service Requester
- L2VPN Service Model
- Service Orchestration
- Application OSS/BSS
- Network Orchestration
- Protocol/device Configuration Model
- Network

Based on draft-wen-l2sm-l2vpn-service-model Figure 5
Using the Customer Service Model

• Service models are used on the interface between customers and network operators
  o IETF adopts YANG data modeling language in [RFC6020] to model the service
  o Communication protocol used to exchange service model
    • NETCONF/RESTCONF or API
  o Encoding format used to exchange service model
    • XML/JSON or any other human readable format or machine readable format

• network operator maps the service request into configuration and operational parameters that control one or more network to deliver the requested services
Misconception Clarification

- Service in the service model is not “Foo as a service”.
- Network operation is not part of the Customer Service model
  - Expose no details of technology or network resources used to provide the service
    - E.g., point-to-point virtual link connectivity provided by a network tunnel
- The service delivery model is used between service orchestrator and network orchestrator
  - The service orchestrator should map Customer service model to data model with protocol parameters and device configuration parameters
  - Two model are usually not same.

- Service Level Agreements (SLAs) have a high degree of overlap with the definition of services present in Customer service models
  - SLAs typically include a number of fine-grained details about how services are allowed to vary, by how much, and how often
  - Link with commercial terms
Misconception Clarification

• Operator-Specific Features
  o a common description of the services that they offer to their customers should be agreed
  o Standardized model can be developed
  o Operator specific feature can be augmented from standardized model

• Supporting Multiple Services
  o Network operators can offer multiple different services to their customers
  o It is implementation and deployment specific on whether all service models are processed by a single Service Orchestrator or each model is processed by a separated service orchestrator
Q&A (and Tomato😊)

THANK YOU