

Review of Proposed Work

(ONSEN BOF)

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OPS Challenges Drive Work of Operationalizing Abstractions

- Operators rely on *Abstractions* to build, deliver, and maintain differentiated services and simplify provisioning
- ONSEN aims to make service and network abstractions easier to implement and use, *improving automation, operational efficiency, and interoperability*
- Work Items
 - Operational motivation for network and service abstractions
 - Updates to the YANG network data models for L3NM and L2NM
 - Updates to the YANG service data models for L3SM and L2SM
 - Develop a framework for reusable service YANG data models
 - Define the interface between YANG-based service APIs and the OSS/BSS layer

Work Item 1: Operational Motivation for Network and Service Abstractions

- IETF YANG data models are technically sound but operationally incomplete. Operational workflows for deploying, monitoring, and evolving these abstractions are inconsistent and poorly integrated
- Proposed work
 - Develop an "Operational motivation" document to catalog actual deployment use cases, document why difficult to use current models in production, document the approach of operationalizing them in a consistent, scalable, and automatable manner
- Related draft
 - draft-xie-onsen-problem-statement

Work Item 2: Updates to the YANG Network Data Models for L3NM and L2NM

- L2NM and L3NM provide YANG data models for network-level configuration and operation of L2VPN and L3VPN services across provider networks
- Based on operational experience, some missing features were identified (e.g., SRv6 support, more BFD parameters)
- Proposed work
 - Identify limitations in the current L2NM & L3NM models
 - Update the existing L2NM/L3NM models by supplementing missing functionalities, configuration blocks, addressing operational limitations, meet the need for more granular control
- Related draft
 - draft-bg-onions-update-network-service-models

Work Item 3: Updates to the YANG Service Data Models for L3SM and L2SM

- L2SM and L3SM provide YANG data models for customer-facing configuration and management of L2VPN and L3VPN services
- Several shortcomings and needs were gathered from years of deployments (lack of Layer 2 QoS for L3SM, duplications, etc.)
- Proposed work
 - Identify limitations in the current L2SM & L3SM models
 - Update the current data service models by incorporating new capabilities and additional modules, including the refactoring or restructuring of existing service models and the creation of new service models.
- Related draft
 - draft-fu-onsen-update-l3sm-service-models

Work Item 4: Develop a Framework for Reusable Service YANG Data Models

- Services rely upon common building blocks that are not adequately taken into account when designing LxSMs
- Some recent service models were designed to provide such common blocks (ACaaS). However, an effort is still needed to optimize how the various services can be offered
- Proposed work
 - Define an approach that allows to decompose complex services into composable and reusable ones
- Related draft
 - draft-lambrechts-onsen-svc-yang

Work Item 5: Define the Interface between YANG-based Service APIs and the OSS/BSS Layer

- This is the integration and automation glue that connects IETF standards to real operator workflows—currently a significant gap in the IETF landscape.
- Proposed work
 - Develop a mechanism to map YANG schemas to OSS/BSS models and APIs.
 - Guidance for operationalizing and integrating YANG-based service APIs
- Related draft
 - draft-lambrechts-onsen-yang-tmf-mapping

Drafts in Datatracker Indicate Interest Already

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- [draft-lambrechts-onsen-svc-yang-00](#)
An Extensible Architecture for Service Modeling
- [draft-lambrechts-onsen-yang-tmf-mapping-00](#)
Mapping YANG Schemas and Instance Data to TM Forum Data Models and APIs
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Q&A
Thank you !

L3NM & L3SM

