

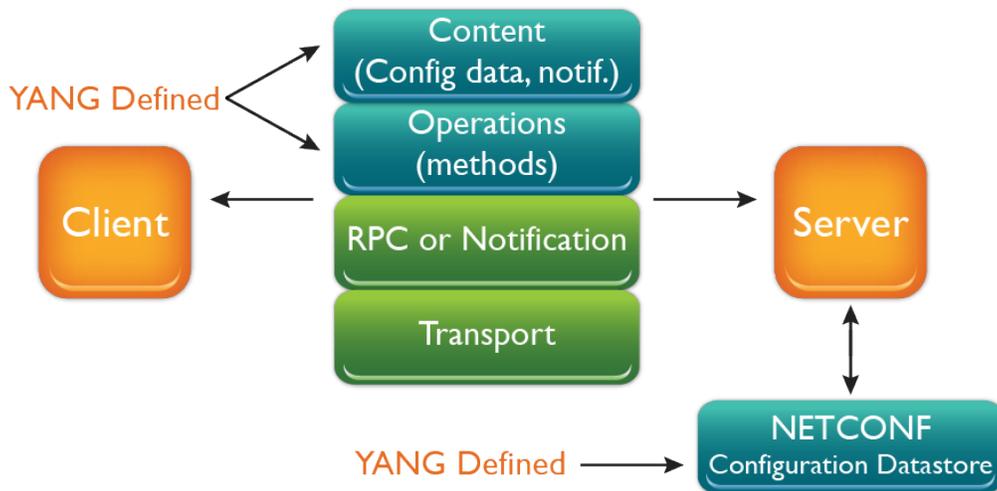
Service Management and Orchestration (SMO)

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SMO and Data Models

Introduction

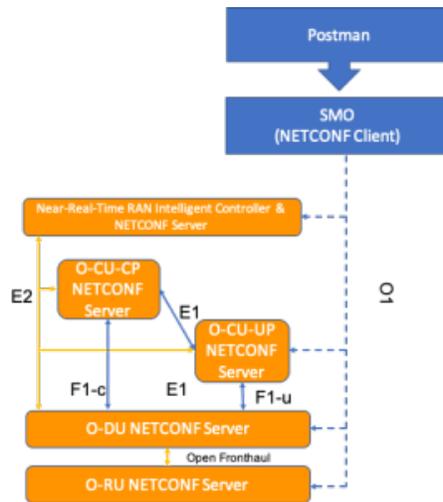
The SMO uses data models to drive the configuration and management of the elements that make up the O-RAN solution over the NETCONF protocol. For an example of how the SMO (NETCONF client) interacts with the RIC, CU, DU and RU (each of which are NETCONF servers), see diagram below:



The SMO can offer REST APIs that can be used to drive the configuration on the RIC, CU, DU and the RU.

Testing of Data Models

SMO is collaborating with [OAM](#) project to test and drive the data models being published for the O-RAN solution. These models could come from 3GPP or from O-RAN itself. The models themselves will reside in the NETCONF server, e.g. in the near RT RIC, O-CU-UP, O-CU-CP, O-DU and the O-RU and will be requested by the NETCONF client, e.g. the SMO at the time the NETCONF session is established. Thereafter, an application like Postman can drive the north bound APIs exposed by the SMO. Example of these configuration snippets will appear in a Gerrit repository near you. For a visual of what the test framework looks like see the following diagram:



SMO and App Onboarding

Introduction

One of the purposes of the SMO is to onboard applications, whether they are rApps running on non-RT RIC, or xApps running on near-RT RIC. After they are onboarded, the SMO needs to keep an application package catalog for what applications are available for the operator to deploy or create instances of.

To be able to onboard those applications, the SMO needs to be able to understand how the application is packaged. Details of that are discussed below. Following that is a discussion on around what an application package catalog is supposed to expose so that an operator can trigger a deployment of an application.

Application Package Schema

The SMO project is trying to define the schema for the package. For details on the proposal and the comments on the proposal, see the [this](#) link. The proposal follows the package schema defined by ETSI NFV SOL 004 that defines the schema for packaging VNF Descriptors (VNFD) for both TOSCA and YANG data model definitions. The idea is to build on the package definition, and use it for application packaging.

Application Package Catalog



See updates here on details of an application package catalog.