OAM Architecture

The OAM architecture is defined by WG1 in the O-RAN OAM architecture document. WG2 clarified the function split between non-real-time-RIC and an Orchestrator FCAPS Framework. Please see the attached document.
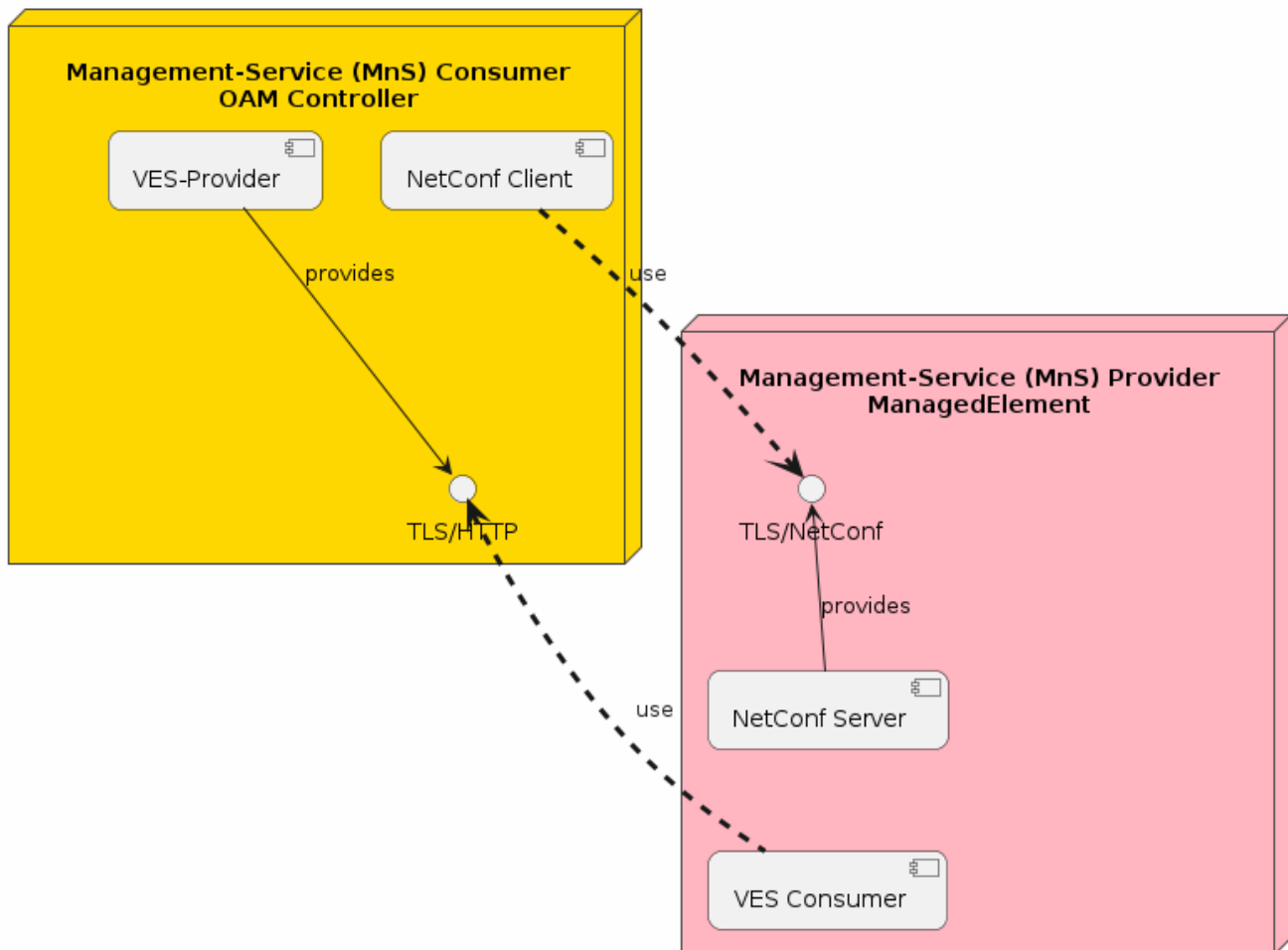
O1 Component Architecture

According to the O-RAN-OAM-interface specification (O1) each MnS Provider (ME) implements a (TLS/)NetConf interface for Configuration Management and consumes TLS/HTTP-POST messages with a json body in VES message format.

The method for the VES subscription/un-subscription must be performed via NetConf, because VES itself does not provide such function. The MnS Consumer will use the NetConf interface for such an operation.

Integration into SMO

In the meeting from 2019-08-26 was clarified the expected integration of the OAM Architecture into a Service Management and Orchestration Framework (SMO).

The VES collectors will receive the VES messages of the O1 interface.

SMO

non-rt-ric

ML/AI | OOF | Policy | SO | µServices (FCAPS) | Portal

Identity

Message Bus (including Message Router, Data Router)

LOG

O1 NETCONF Client | O1 VES Collector | O1 File Collector

Database

O2

A1:REST

O1:NETCONF/YANG/CM

O1:VES/ FM, CM, PM

O1:FTPse/ PM, SWM

1 logical cloud, distributed locations

Near-Real-Time RAN Intelligent Controller

E2

O-CU-CP

E1

O-CU-UP

F1-c

F1-u

O-DU

Open Fronthaul

O-RU

Uu

User Equipment / IoTs

M-Plane
OpenFronthaul
NETCONF/YANG
FM, CM, PM

5G Core Network 3GPP

N2

AMF

N3

UPF

N4, N5, N7, N8, N10, N11, N12, N13, N14,
N15, N16, N17, N22, N24, N27, N31

NSSF | NRF | UDM | AF | AUSF

NEF | PCF | SMF | SCP | PCF

N6

Data
Network