



LF NETWORKING

LFN Developer & Testing Forum

Impact of the LF Mentorship Program

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Konza Technopolis Development Authority

What is Konza Technopolis ?

- Konza Technopolis Development Authority (KoTDA) is the implementing agency under the Ministry of Information Communications and Technology (MoICT).
- Konza Technopolis is envisioned to be Kenya's first smart city with integrated smart urban infrastructure facilities that supports the delivery of connected urban services to enable Kenya's knowledge economy ambition.
- Building a smart city requires heavy infrastructure investment.
- The hope is to leverage on open source to deploy smart city infrastructure.
- Building the African Silicon Savanna – City modelled after Silicon Valley



Konza Technopolis Cont ..

Data Center



Horizontal Infra



What is the problem we're trying to solve at KT?

1. Need for a paperless environment
2. Over reliance on proprietary software's which is cost prohibitive.

Smart City Innovations Piloted so far;

- Traffic Mgt
- Parking Mgt
- Asset Mgt
- Access control Mgt

To support this, Konza has developed Tier III DC that the Authority intends to use to drive adoption and consumption of open-source software solution.

How we're using open source

1. Open Source Email Servers
2. Ticketing tools
3. Infrastructure monitoring

How can we be more active in the open source space

- Identify open source project that speaks to our goal. Offer to support with talents or funding or both.

What should be our focus

- Cloud Native
- Edge Computing

The LF Mentorship Experience

Joined the Program for the Summer 2021 cohort.

Placed under the ONAP Web Based Architecture Navigation Solution project.

The Problem (then):

- two sources of ONAP information

1. The developer Wiki
2. ReadTheDocs

Why was this a Problem?

- Documentation on the wiki not quickly moved to the ReadTheDocs where essentially it is supposed to reside and gets outdated pretty quick.
- Finding most current and relevant documentation becomes difficult

Architecture Navigator

Architecture Overview

Kohn-R11 - (10-Nov-2022) - (Kick Off) Apr 07, 2022

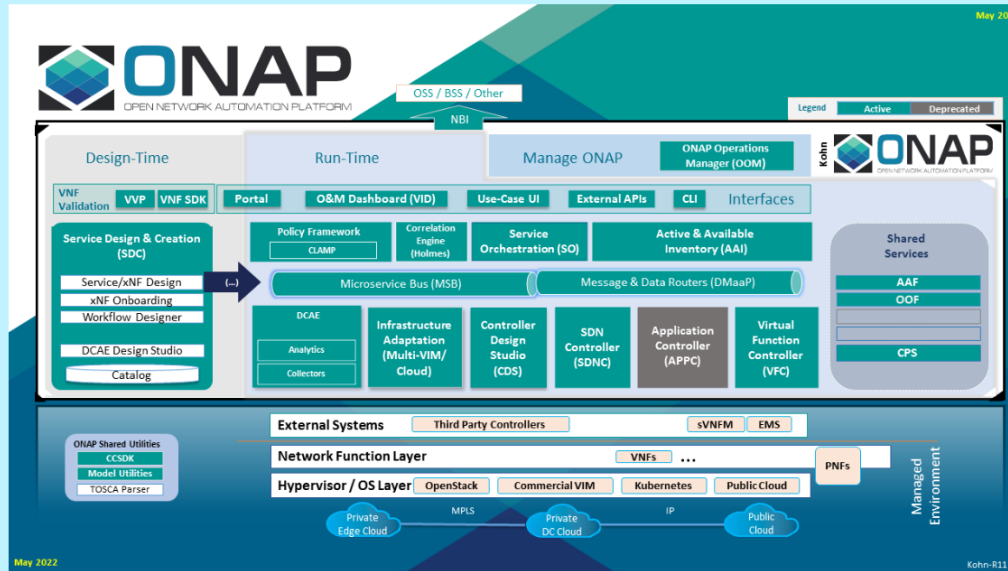
ONAP Subcommittees »

Linux Foundation »

ONAP Use Cases

Release Planning

Task Forces »



SVG based solution



Northbound Interface (NBI) towards OSS, BSS and other

Design-Time

VNF Validation

VVP VNF SDK

Service Design & Creation (SDC)

- Service/VNF Design
- VNF Onboarding
- Workflow Designer
- Controller Design Studio (CDS)
- DCAE Design Studio
- Catalog

Utilities

ONAP Shared Utilities

- Common Controller SDK (CCSDK)
- Model Utilities
- TOSCA Parser

Run-Time

Interfaces

Portal O&M Dashboard (VID) Use-Case UI (UII) External APIs CLI

Policy Framework (CLAMP)

Correlation Engine (Holmes)

Service Orchestration (SO)

Active & Available Inventory (AAI)

Microservice Bus (MSB)

Data Movement as a Platform (DMaaP)

Data Collection, Analytics & Events (DCAE)

Collectors Analytics

Infrastructure Adaption (Multi-VIM/Cloud)

SDN Controller (SDNC)

Application Controller (APPC)

Virtual Function Controller (VFC)

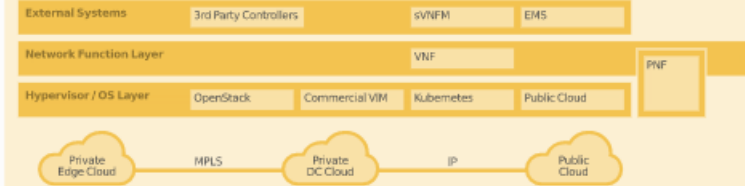
Shared Services

- Appl. Authoriz. Framework (AAF)
- Optimization Framework (OOF)
- Logging
- Multi-Site State (MUSIC)
- Config. Persistence Service (CPS)

Manage ONAP

ONAP Operation Manager (OOM)

Managed Environment



Color Legend:

Design

Orchestration & Management

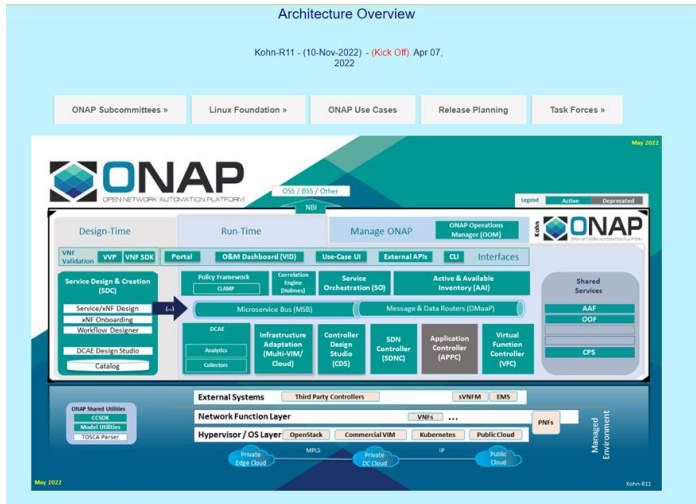
Operations

Entirety of ONAP Components

Unmaintained ONAP Component

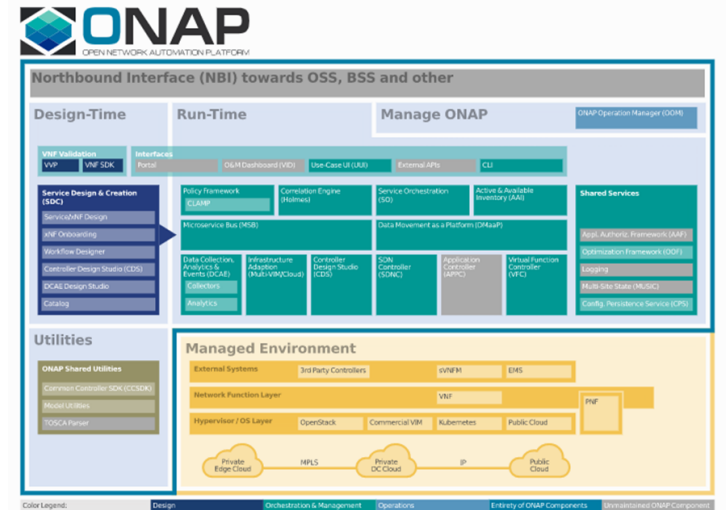
Which Model To Use?

Clickable maps in the form of an image overlay



vs.

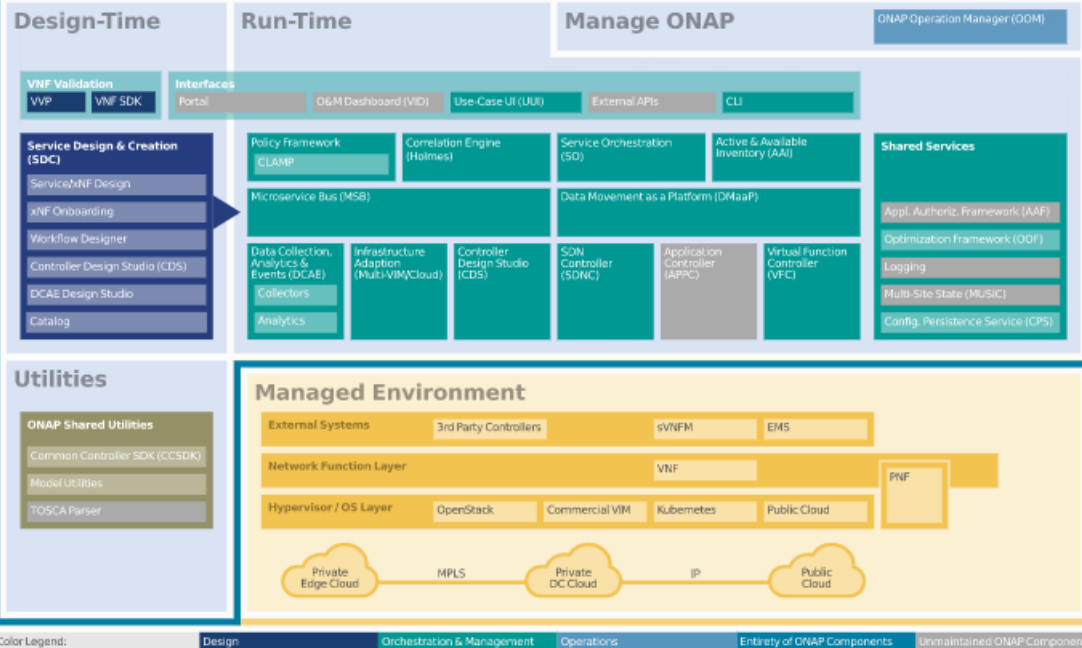
Clickable maps in the form of an SVG diagram.



SVG Solution Chosen for Formal Doc Set



Northbound Interface (NBI) towards OSS, BSS and other



Findings and Recommendations

Pages / ... / Architecture Navigator (ArchNav) 🔒

✎ Edit ☆ Save for later 👁 Watch ➦ Share ...

📄 79 views

Architecture Navigator Knowledge Transfer

Created by Nicholas Karimi, last modified on Jul 30, 2021

🔔 This page has been set up and created by @Nicholas Karimi , ArchNav mentee ([Profile](#)) to document his experiences and understanding of the project as he interacts with it. Therefore, consider this not as documentation for the ArchNav tool but a knowledge-sharing repository.

Problem Statement

In an environment where we had an ideal Wiki and an ideal ReadTheDocs, a small team would be effective in maintaining an up to date documentation, while developers and end-users who want to look up information on documentation would do it effortlessly.

Currently, the Wiki is not structured. There are two sources for ONAP information, *the developer wiki*, and the *ReadTheDocs*. This is a problem because some of the documentation on the wiki is not quickly moved to the ReadThe Docs where essentially it is supposed to reside and gets outdated pretty quick.

This makes it very difficult to find information and find the most current and relevant one. With so much information scattered in the wiki, minimizes value to the users and they will tend to forgo looking up for documentation they were after.

The Architecture Navigator seeks to solve this problem by creating a visual presentation layer with clickable objects representing

<https://wiki.onap.org/x/Oh4qBg>

Why the mentorship was important to me.

- Prepared me for leadership roles
- Exposure to multiple cultures and ideas
- Build a professional network
- Self-enriching experience
- Most importantly, it led to paying forward where I have been mentoring others and helping them grow.

HUAWEI



Huawei ICT
Competition 2021-
2022

National Final
Awarding Ceremony
Nairobi

HUAWEI

Cloud Track Teams

Team 1
Kenyatta University

Team 2
Laikipia University

Nicholas Karimi

Kipchirchir Ronoh

Obare

Ronoh



Mentorship Blog and Evaluation Report

- <https://lfnetworking.org/pov-what-its-like-to-be-an-lfn-mentee/>
- <https://wiki.onap.org/display/DW/Architecture+Navigator+Knowledge+Transfer>

A close-up, low-angle shot of a golden wheat field under bright, warm sunlight. The wheat stalks are in sharp focus in the foreground, with a soft, blurred background of more wheat. The overall color palette is warm, dominated by yellows, oranges, and browns.

OLF

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