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ONAP / OpenDaylight

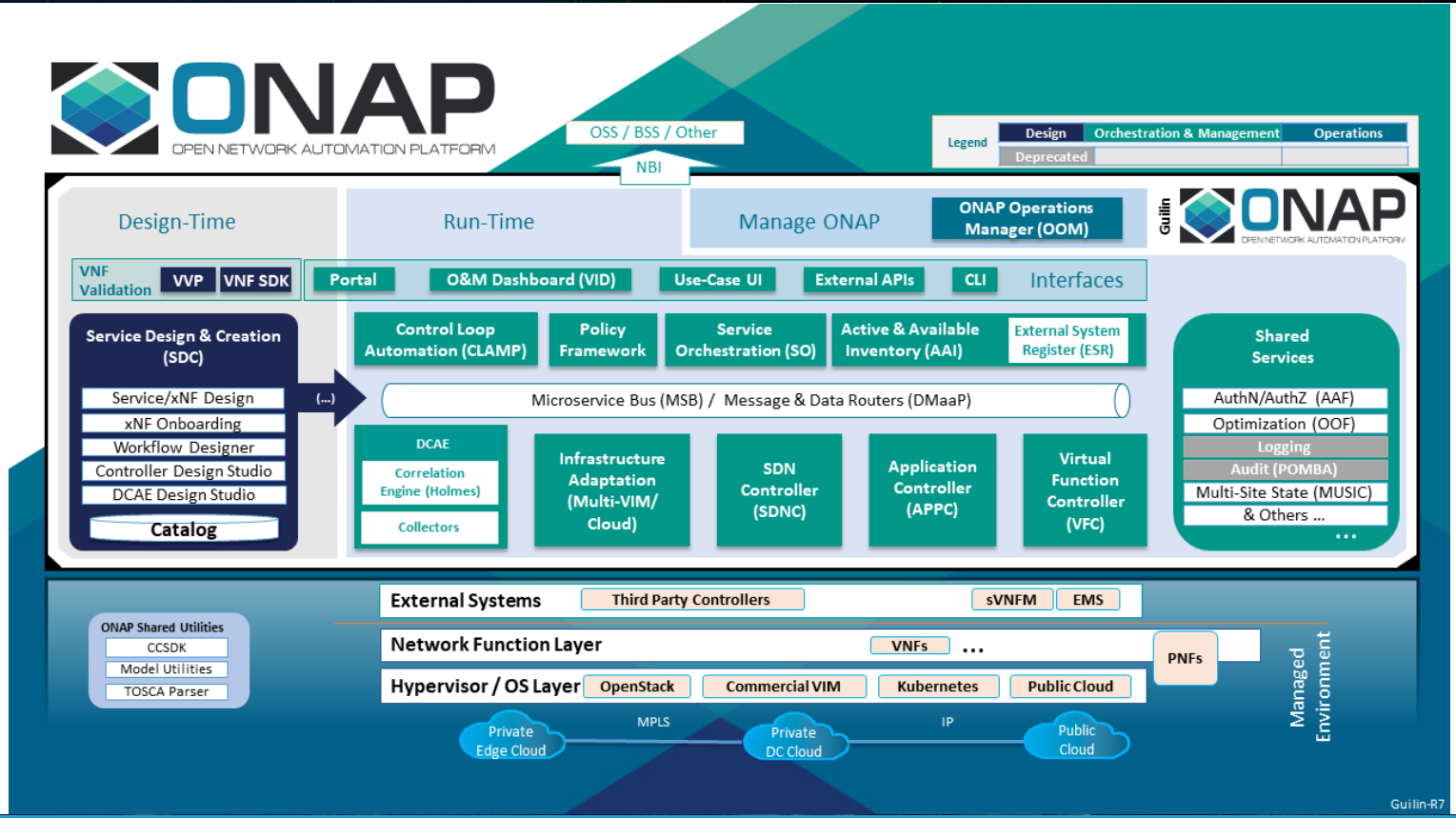
Projects similarities

@Pantheon_Tech

Agenda

- A very brief overview of ONAP and OpenDaylight projects
- Discuss similarities between ODL and ONAP (sub)projects

ONAP – overview



ONAP – core projects (Guilin)

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Common
- DMAAP - Data Management as a Platform
- MSB - Microservices Bus

Service delivery
- AAI - Active and Available Inventory
- SDNC - Software Defined Network Controller
- CCSDK - Common Controller Software Development Kit
- CDS - Controller Design Studio
- SDC - Service Design & Creation

Service assurance
- DCAE - Data Collection, Analysis and Events

Ops
- OOM - ONAP Operations Manager

ONAP – projects cont. (Guilin)

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Verticals:

- ~~AAF - Application Authorization Framework~~ (deprecated)
- ~~APPC - Application Controller~~ (deprecated)
- CLAMP - Control Loop Automation Management Platform
- CLI - Command Line Interface
- EXTAPI - External API Framework/NBI
- HOLMES - Holmes Alarm Correlation and Analysis
- ~~LOGGING - Centralized Logging~~ (deprecated)
- MULTICLOUD - MultiCloud Framework
- ~~MUSIC - ONAP Multi-Site Integration~~ (deprecated)
- OOF - Optimization Framework
- ORAN - Open-RAN Support in ONAP
- POLICY - Policy Framework
- PORTAL - Portal Platform
- SDNR - Software Defined Network Controller for Radio
- SO - Service Orchestration
- UUI - Use Case User Interface
- VFC - Virtual Function Controller
- VID - Virtual Infrastructure Deployment
- VNFSDK - VNF Software Development Kit
- VVP - VNF Validation Platform

OpenDaylight - overview

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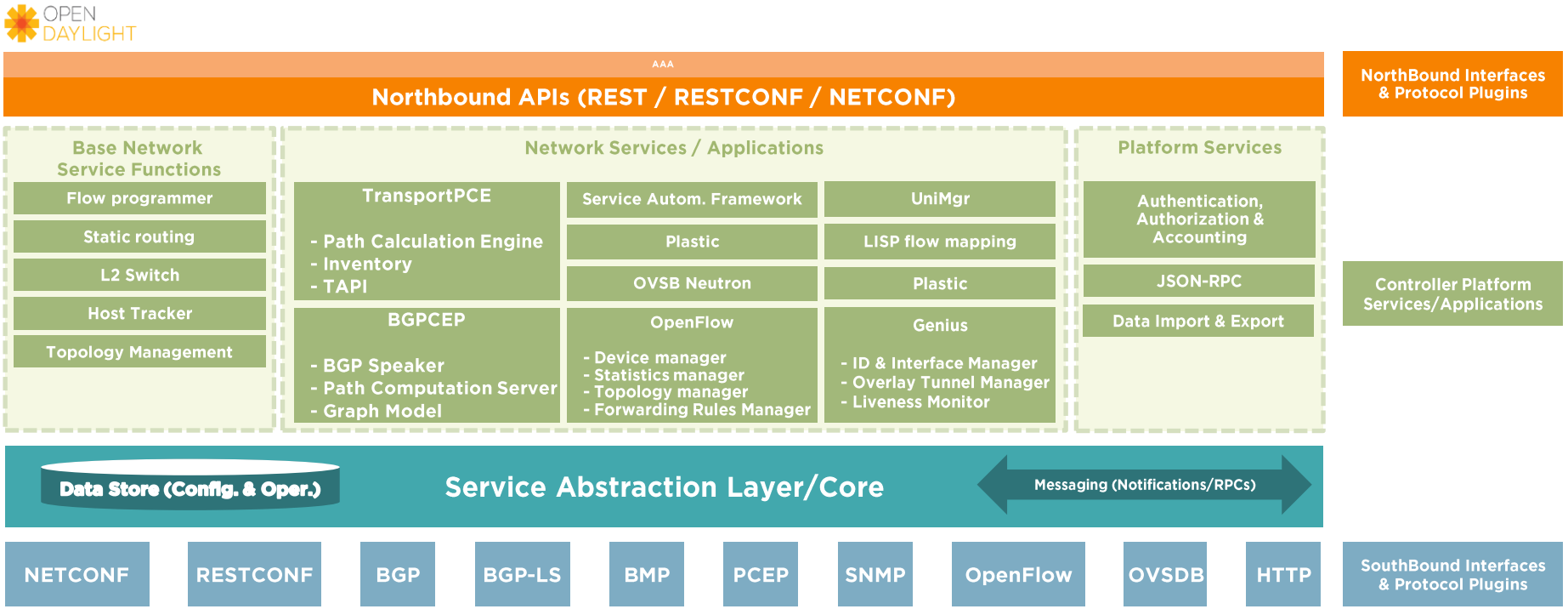

OpanDaylight - projects

Kernel projects
- AAA
- Controller
- Infrautils
- YANGTOOLS
- MD-SAL
- NETCONF
- odlparent

Managed projects
- BGPCEP
- DAEXIM
- JSON RPC
- LISP Flow Mapping
- OpenFlowPlugin
- OVSDB

Self-Managed Projects
- TransportPCE
- Genius
- NetVirt

Incubation
- odlguice
- odlmicro
- odlsaf
- plastic

Similarities 1. – ONAP uses ODL

OpenDaylight dependencies found in ONAP (projects)*

- onap/ccsdk-oran
- onap/ccsdk-parent
- onap/ccsdk-distribution
- onap/ccsdk-features
- onap/sdnc-northbound
- onap/demo
- onap/appc
- onap/cps

Deps: YANG / NETCONF / MD-SAL / CONTROLLER / AAA

*src: https://github.com/search?q=org%3Aonap+org.opendaylight&type=code

Similarities 2. – SO / SAF

Features	ODL SAF	ONAP SO
Camunda engine	✔	✔
Helm deployment	✔	✔
Dependencies:	jsonRPC Infrautils	ONAP AAF
Adapters	Opentracing adapter API to communicate northbound Python NAPALM and ntc-rosetta for southbound	Catalog DB adapter CNF adapter NSSMF adapter OOF adapter OpenStack adapter SDNC adapter VFC adapter VNFM adapter

Git stats:

ODL SAF
- contributors: 3
- commits: 6 (last 12/20/2020)
- lines of code: approx. 18k

ONAP SO
- contributors: 59
- commits: 6485 (last 02/02/2021)
- lines of code: approx. 121k

Similarities 3. – DCAE / Plastic

Features	ONAP DCAE	ODL Plastic
Data input	Handlers (northbound) Collectors (southbound)	Payload in XML or JSON format for translation calls
Data processing	Analytics Event Processor	Variables Schemas Morphers Classifiers

DCAE uses use case driven collectors and handlers with no data transformation features, while PLASTIC uses different approach taking input data mapping it into input schema binding variables, transforming it with a morpher and mapping to output schema.
Although DCAE is better maintained it does not provide a generic mapping layer which PLASTIC does, thus ONAP DCAE might benefit from adopting the PLASTIC service if it could be integrated with Kafka and/or REST.

Git stats:

Plastic
- contributors: 5
- commits: 29 (last 10/16/2020)
- lines of code: approx. 18k

ONAP DCAE (parent repo)
- contributors: 29
- commits: 355 (last 02/02/2021)
- lines of code: approx. 84k

ONAP DCAE sub-repositories:
- count: 34

Similarities 4. - Not covered ?

- Inventory
- AAF vs. AAA
- Adapters & protocols
- ???

Discussion / Thoughts

- What's the demarcation line between ONAP and ODL ?
- Project candidates for transfer from ODL to ONAP or vice-versa ?

Thank you

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