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The bridge to possible

Achieve closed-loop automation with IOS-XR Telemetry monitoring

Shambhu Mishra(Technical Marketing Engineer)

DEVWKS-2265

Agenda

- Configuration and Device Management with NSO(Network Services Orchestrator)
- Closed Loop automation Experience.

Configuration and Device Management with NSO(Network Services Orchestrator)

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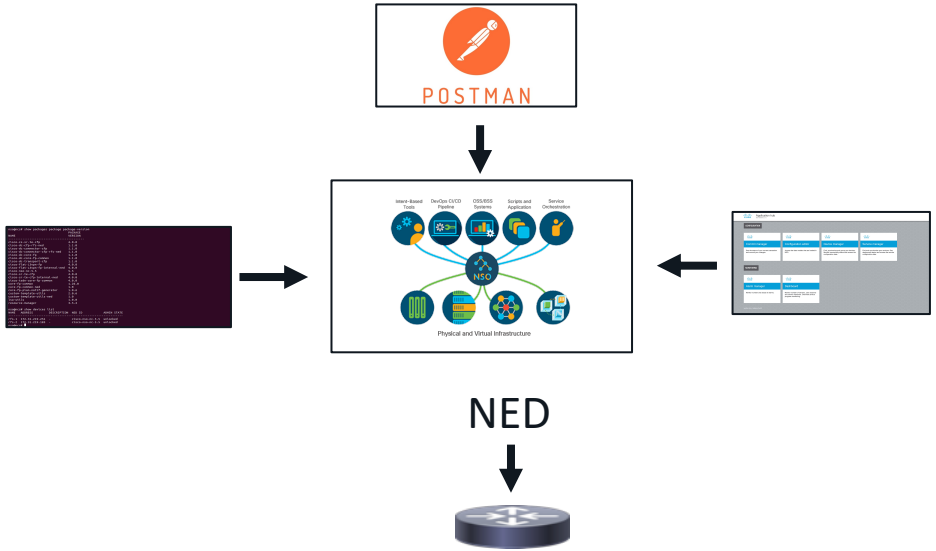
Lab Access Slide.

Please download the lab guide from below url.

https://github.com/CL-Loop/C22-close-loop.git

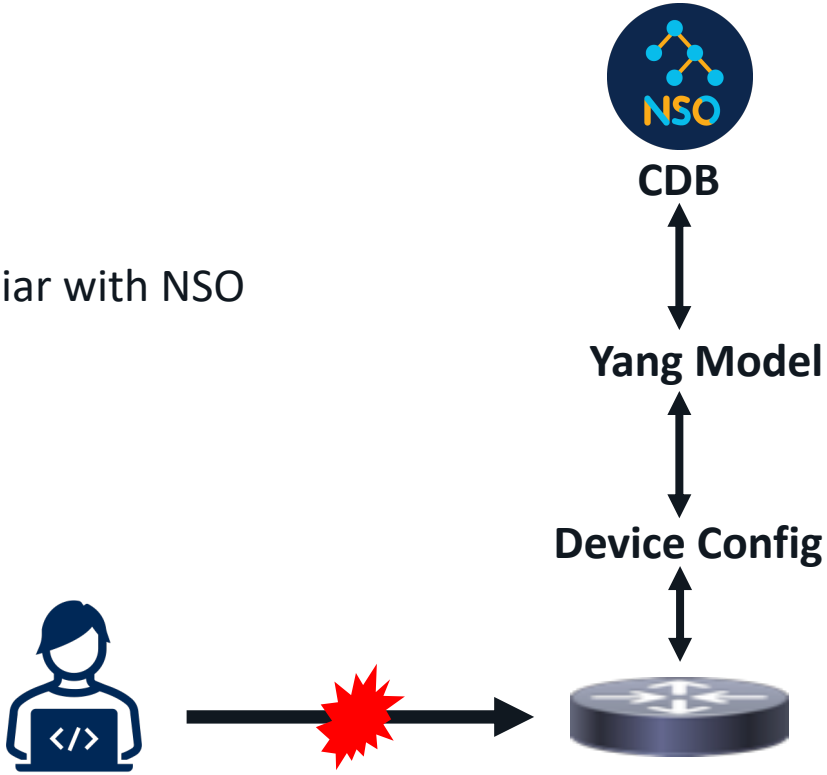
NSO introduction

1- YANG as an overall modelling language.
2- Transactions towards CDB exhibit ACID(Atomicity, consistency, Isolation, durability).
3- Multivendor support
4- Rich northbound software interfaces

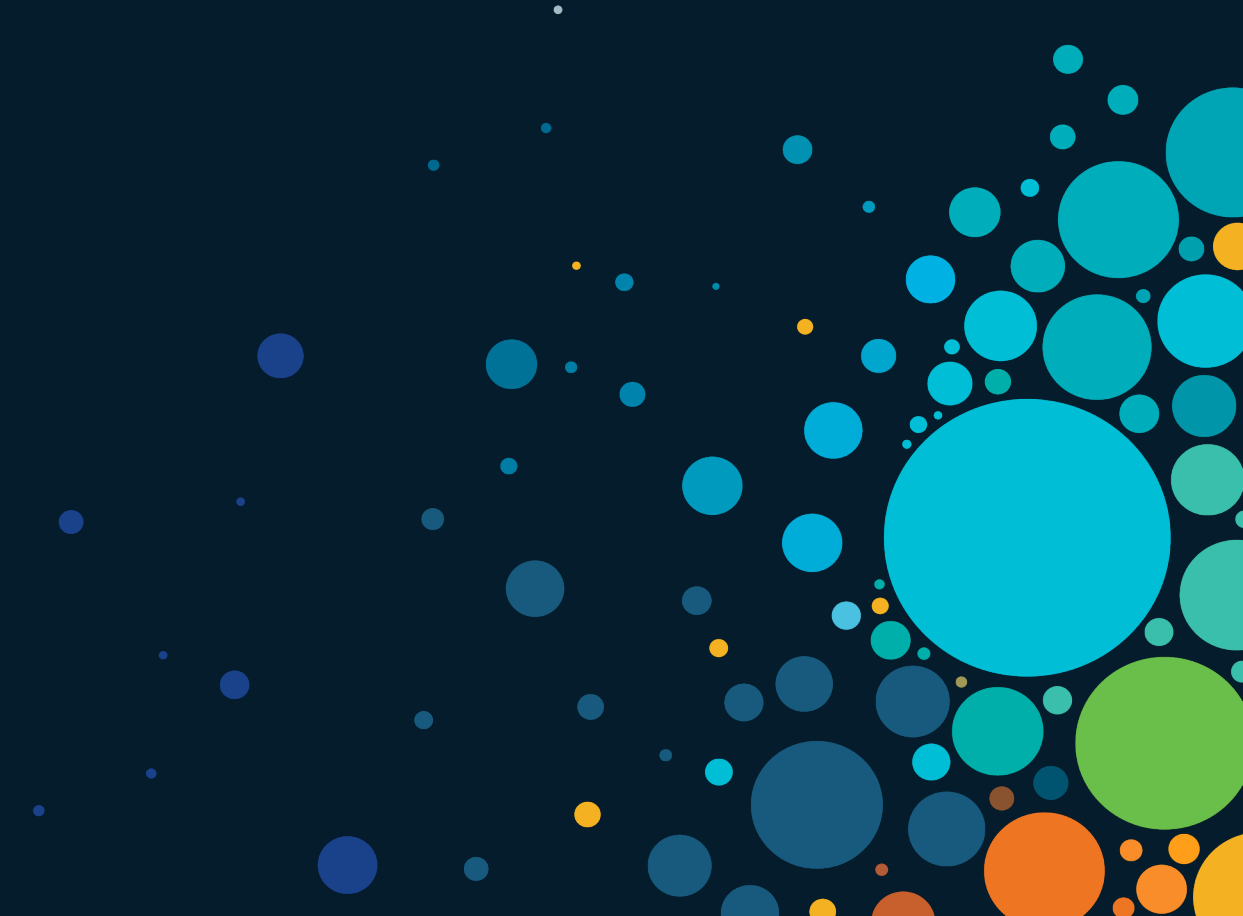


NSO TASK-1

1- Make Yourself Familiar with NSO
2- NSO in Action



Closed Loop Automation Experience.



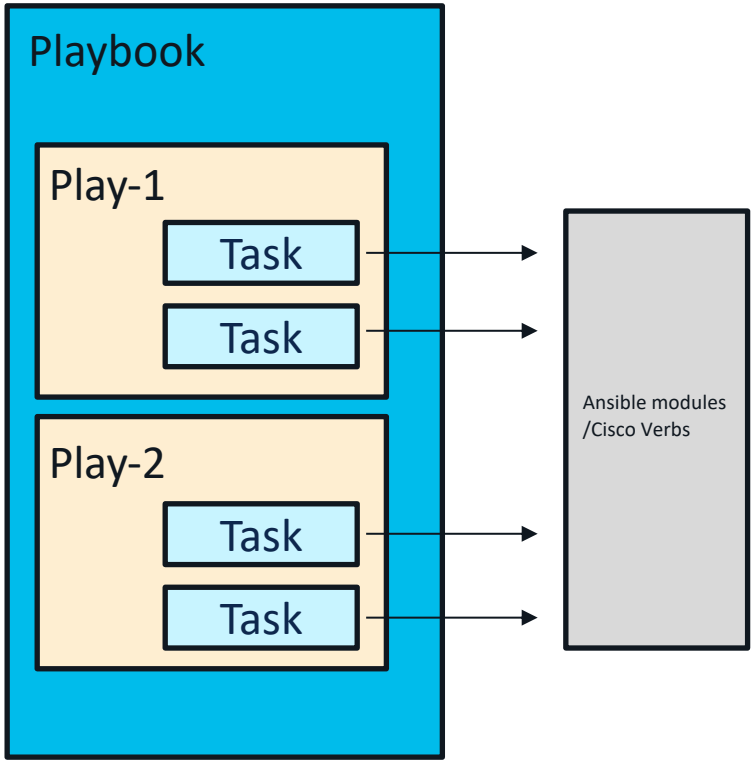
CrossWorks Playbooks Introduction

Ansible playbook:

- Open Source
- Agentless
- Idempotency
- Declarative(non-procedural)

“Cisco Verb are Cisco version of Ansible Modules”

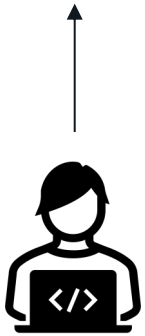
1. Check verb
2. Action verb



Telemetry Based KPI Monitoring

Crosswork health Insight

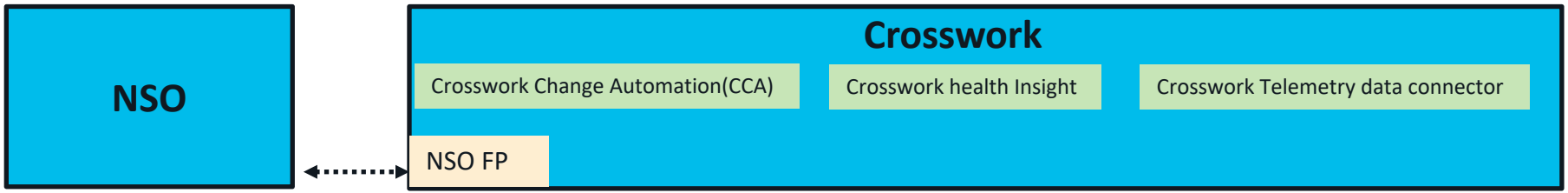
Dial-in MDT



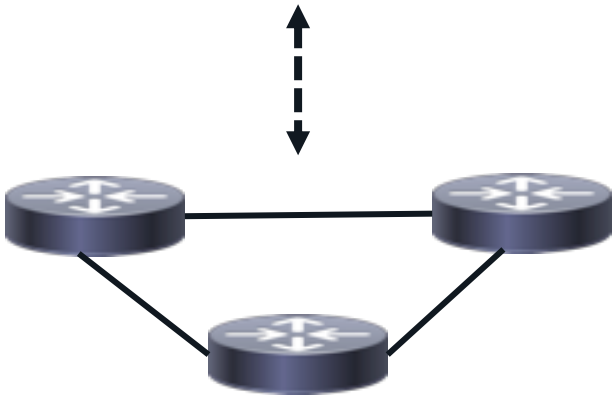
```
RP/0/RP0/CPU0:Node-5#show telemetry model-driven subscription
Sun Jun 12 01:48:47.781 UTC
Subscription:  GNMI__5066822812952540038  State: ACTIVE
-------------
  Sensor groups:
  Id                                  Interval(ms)        State
  GNMI__5066822812952540038_0         60000               Resolved

  Destination Groups:
  Id                  Encoding            Transport   State   Port    Vrf                     IP
  GNMI_1001           gnmi-proto          dialin      Active  55664                           198.18.1.220
    TLS :              False
```

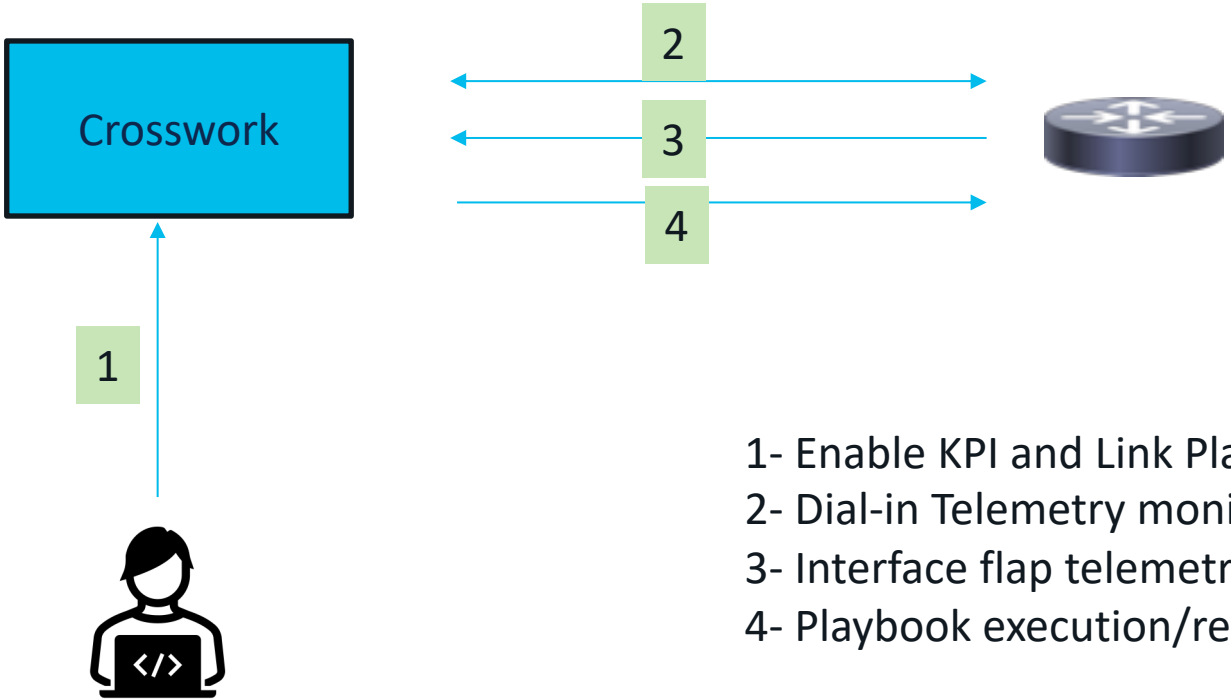
CrossWorks close loop workflow.



CCA: playbook execution
Health Insight: KPI Monitoring
Telemetry collector: Dial-in telemetry
NSO: Provisioning



Task-2 : Close-loop Automation config



1- Enable KPI and Link Playbooks
2- Dial-in Telemetry monitoring
3- Interface flap telemetry data
4- Playbook execution/remediation

Thank you

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