



The bridge to possible



# Drag, Drop, and Deploy Low-Code AI Agents for Network Ops

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# Who is this?

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# Agenda

AgenticOps in the World of Networking

An AgenticOps Open Ecosystem, brick-by-brick

Demo 1: Agentic ChatOps for NetAuto

Demo 2: Agentic Reporting & Ticketing for NetAuto

Wrap-up

# AgenticOps in the World of Networking



## Speaking CLI

Modern LLMs already understand network CLI semantics for multiple vendors and platforms



## Reasoning about intent

"Check BGP health" or "Investigate QOS compliance" implies reasoning that LLMs can do



## No need to be a coding expert

Modern low-code tooling available for agentic workflows ("low-code" still implies SOME code ...)

# An AgenticOps Open Ecosystem for my network



## Ollama (Local LLM runtime)

- Open-source runtime for running models locally
- Several models supported (Llama, Qwen, Mistral, etc)
- Enables self-hosted AI



## n8n (Low-code orchestration)

- Open-core workflow automation
- Enables auditable, guardrailed workflows
- Self-hostable and community-driven



## MCP server (based on pyATS framework)

- Built on open-source pyATS (Apache 2.0, Cisco)
- Exposed series of tools
- Enforces safe R/W operations on real infrastructure

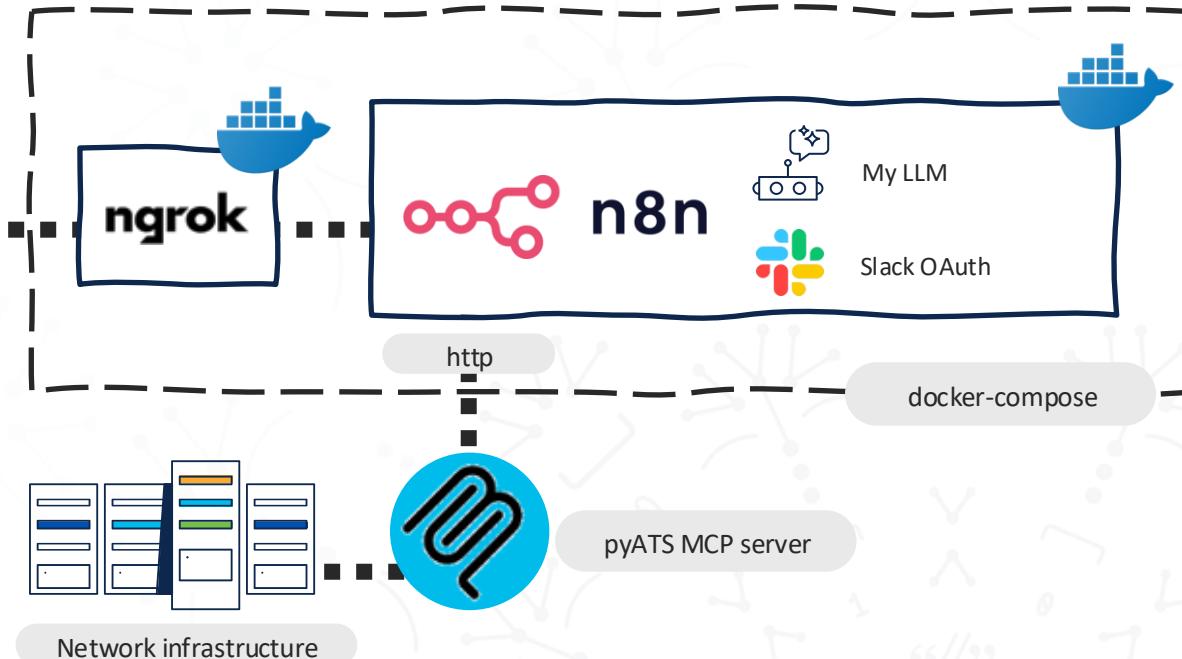
# Demo 1: Agentic ChatOps for NetAuto



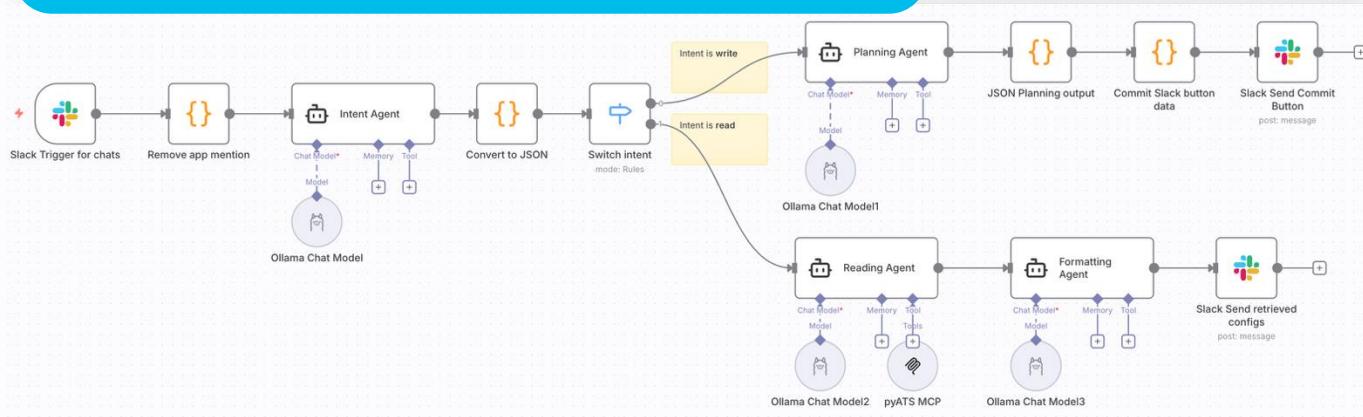
webhooks

Read queries

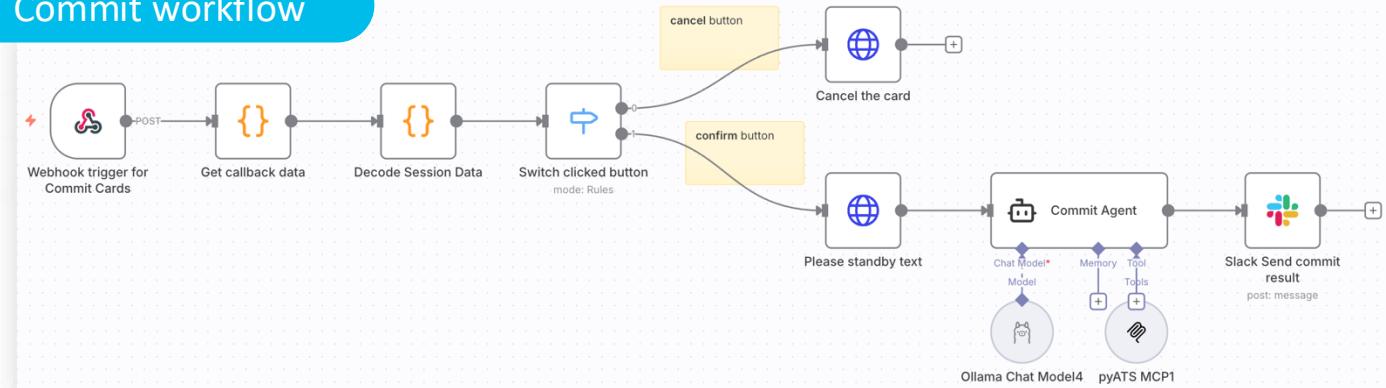
Commit queries with Slack cards for human-in-the-loop



## Reading + Commit intent (planning) workflow



## Commit workflow



## Reading interaction

The screenshot shows a Slack channel named '# net-hot-gossip'. A message from user 'Poncho Sandoval' at 7:33 AM asks for a table with VLAN details for device SW1. Below the message is a table showing VLAN configuration:

VLAN Name	Status	Ports
1 default	active	
10 VLAN0010	active	Ethernet0/0, Ethernet0/2
20 VLAN0020	active	Ethernet0/1

Below the table, a note states: "The output shows the current VLAN configuration on SW1, including VLAN ID, name, status, and ports associated with each VLAN. Note that some VLANs like fddi-default, token-ring-default, etc., are not user-configurable by default."

At the bottom, there is a message input field with placeholder text "Message #net-hot-gossip" and a toolbar with various message formatting options.

## Commit interaction

The screenshot shows the same Slack channel '# net-hot-gossip'. A message from user 'Poncho Sandoval' at 7:38 AM asks for a new primary VLAN on SW1 named MGMT attached to port Ethernet0/1.

Below the message, a configuration plan titled "Configuration Plan for SW1" is displayed:

Create primary VLAN 1 named MGMT and assign it to Ethernet0/1 interface

Risk Level: MEDIUM

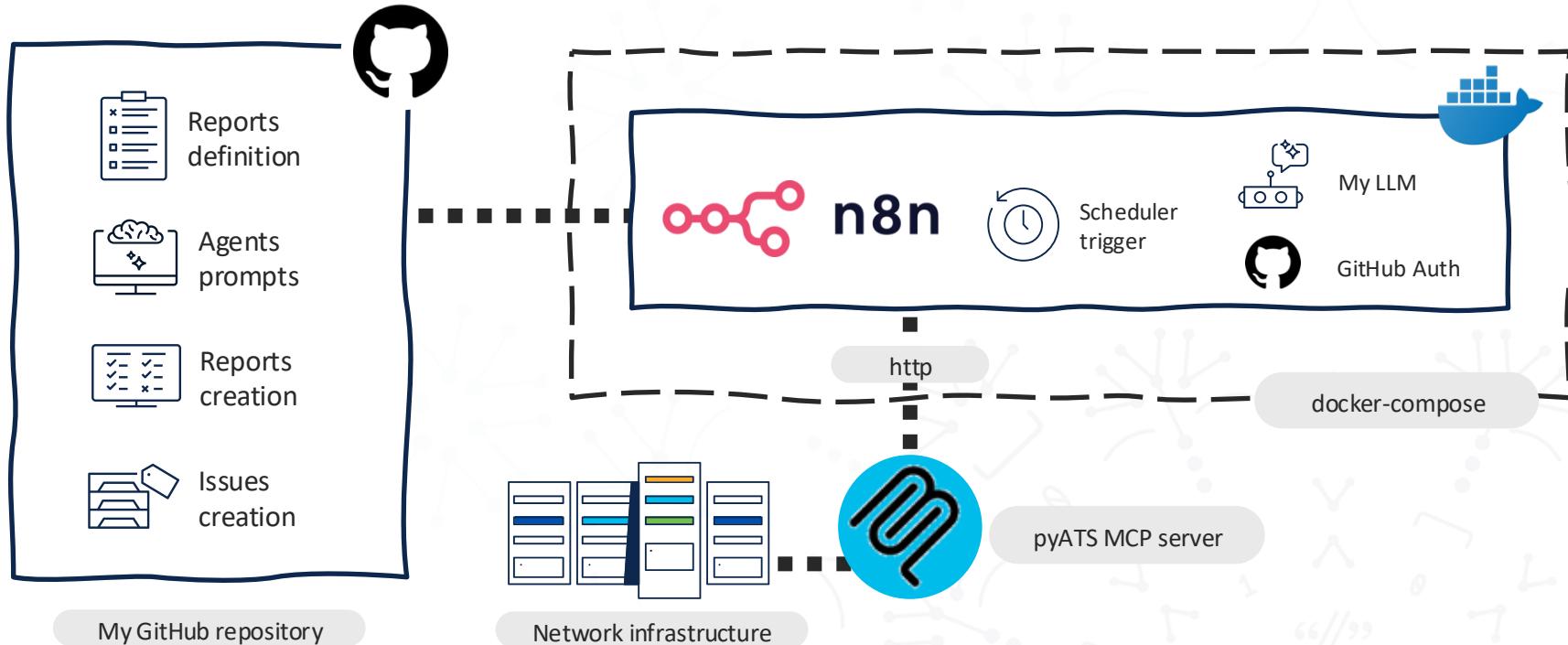
Commands to execute:

```
configure terminal
vlan database
vlan 1 name MGMT
exit
interface Ethernet0/1
switchport mode access
switchport access vlan 1
end
```

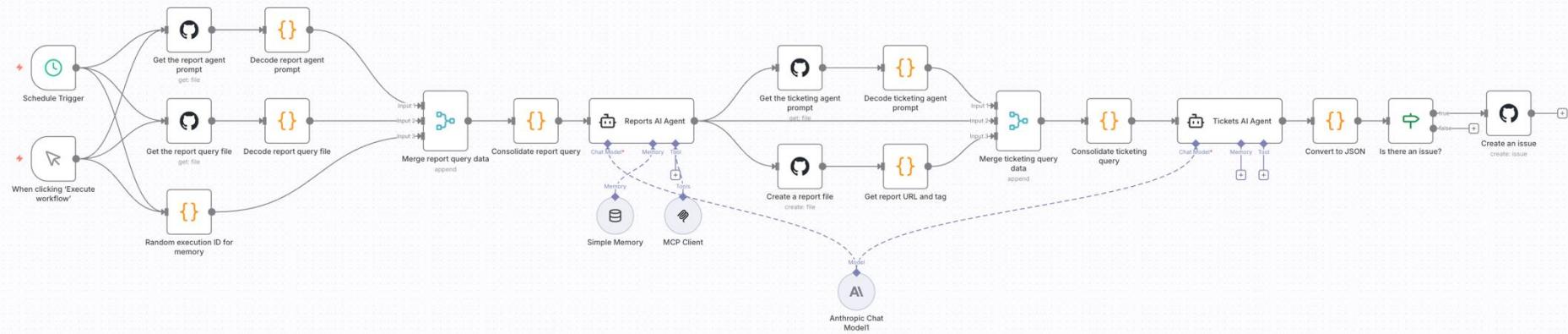
At the bottom, there are two buttons: "Confirm & Apply" (green checkmark) and "Cancel".

At the very bottom, there is a message input field with placeholder text "Message #net-hot-gossip" and a toolbar with various message formatting options.

## Demo 2: Agentic Reporting & Ticketing for NetAuto



## Reporting & ticketing workflow



 ponchotitlan interfaces\_status report gen

Preview | Code | Blame 95 lines (70 loc) · 4.28 KB

Report generation

# Network Interface Status Summary Report

## Executive Summary

Analysis of interface operational states across the network infrastructure reveals **14 operational interfaces** and **4 administratively down interfaces** across 4 devices. The network demonstrates healthy connectivity with active traffic on management interfaces and no packet drops or queue congestion detected.

## Scope & Assumptions

- **Scope:** Complete interface status analysis for all devices ( R1 , R2 , SW1 , SW2 )
- **Data Source:** Real-time interface status via `show ip interface brief` and `show interfaces summary`
- **Assessment Period:** Current operational state snapshot

## Environment Overview

### Infrastructure Components:

- **Routers:** 2 IOS-XE devices ( R1 , R2 )
- **Switches:** 2 IOS-XE devices ( SW1 , SW2 )
- **Total Interfaces:** 18 interfaces analyzed
- **Platform:** IOL (IOS on Linux) virtual environment

# [interfaces\_status report gen] [⚠️medium] Address interface redundancy and documentation gaps on Router R1 #17

[Edit](#)[New issue](#)

## Issue creation

[Open](#)

ponchotitlan opened last week

Owner

...

### Context

Router R1 interface analysis reveals healthy operations with 3/4 interfaces functional and zero errors. However, several operational improvements are needed to enhance network reliability and maintainability.

### Key Issues Identified

- Single Point of Failure: Ethernet0/3 remains unused, reducing redundancy options
- Documentation Gap: Missing interface descriptions on Ethernet0/0 and Ethernet0/1
- Traffic Concentration: All traffic flowing through only 3 active interfaces
- Monitoring Gap: Lack of standardized interface monitoring

### Action Items

#### Immediate Actions

- Add descriptions to Ethernet0/0 and Ethernet0/1 for operational clarity
- Evaluate Ethernet0/3 - determine if it should be activated for redundancy or permanently removed

#### Assignees

No one - [Assign yourself](#)

#### Labels

No labels



#### Projects

No projects



#### Milestone

No milestone



#### Relationships

None yet



#### Development

Code with agent mode



[Create a branch](#) for this issue or link a pull request.

#### Operational Improvements

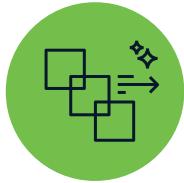
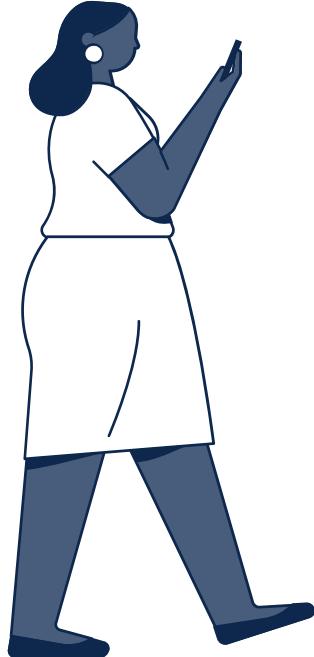
- Implement regular interface health checks focusing on error counters and utilization trends
- Establish consistent interface naming and description conventions

#### Notifications

[Customize](#)

Unsubscribe

You're receiving notifications because you're subscribed to this thread.



Start small: build single-purpose agents for well-defined operational tasks



Treat LLM agents like junior network engineers: restrict what they can touch and how



Build agents on top of real network tools (CLI, APIs, pyATS) – Also, low-code is your ally!



About n8n

[docs.n8n.io/](https://docs.n8n.io/)

About pyATS

[developer.cisco.com/docs/pyats/](https://developer.cisco.com/docs/pyats/)

Our demo repo: pyATS loves AgenticOps

[cs.co/pyATS-loves-agenticops](https://cs.co/pyATS-loves-agenticops)



# FOSDEM



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