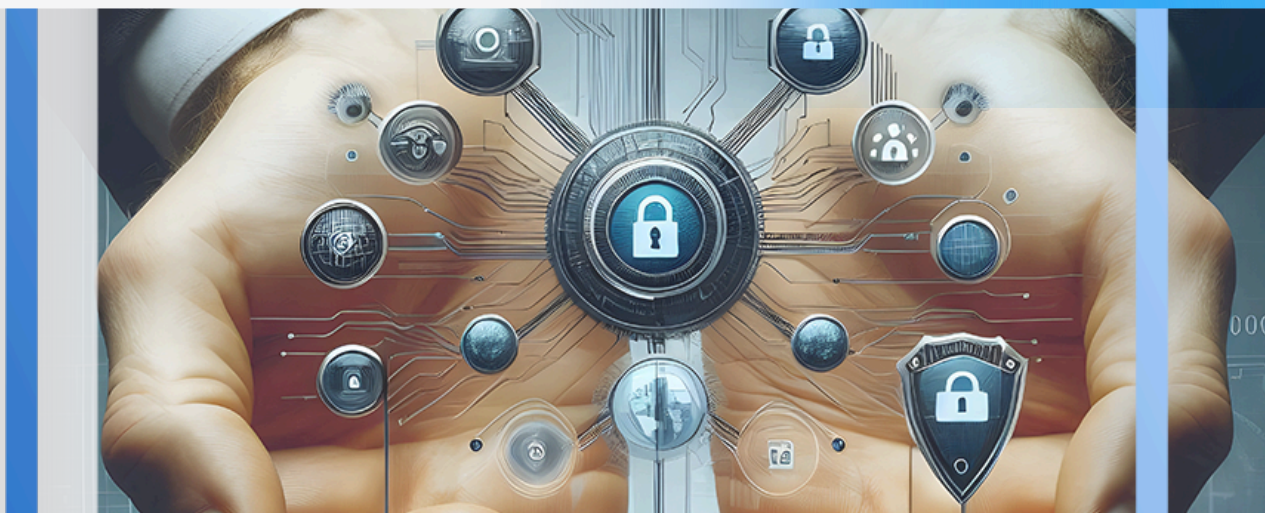# PalC NetPro APIs

## API Documentation



# Purpose of This Document

To enable **developers and platform teams** to programmatically integrate PalC networking and observability into **automation pipelines.**

This document does **not** explain architecture or use cases.
It explains **how to integrate.**

## 1. API Design Philosophy

Modern networks must operate like software platforms

PalC APIs are designed to:

- Eliminate manual configuration workflows
- Enable repeatable deployments
- Integrate networking into CI/CD pipelines

## 2. API Categories

**Fabric Management APIs**

- Device onboarding
- Topology discovery
- Configuration lifecycle management

**Telemetry APIs**

- gNMI-based metric ingestion
- Health and performance indicators
- Event-driven alerts

**Validation APIs**

- Pre-deployment configuration checks
- Policy compliance validation
- Drift detection

## 3. Integration Patterns

**CI/CD Integration**

- Validate network changes before merge
- Deploy configuration as code
- Rollback via versioned state

**Observability Integration**

- Prometheus scraping
- Grafana dashboards
- External analytics platforms

## 4. Security & Access Control

- Role-based access to APIs
- Read-only vs control-plane permissions
- Audit logging for all API interactions