OSS to Regulated

Beyond GitOps: Flux for the Enterprise

Three enterprise packs built on trusted open-source primitives

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CORE ARCHITECTURE

Always Open Foundations

Air-gapped, schema-aware, and agent-ready open-source primitives.

Flux Mirror

Air-gapped artifact supply-chain diode.

`Signed OCI · Age policies`

Flux Schema

Pre-commit validation against cluster APIs.

`Ecosystem schema catalog`

Flux MCP Server

Direct cluster inspection for AI assistants.

`Read-only stdio client`

PLATFORM ARCHITECTURE

Packs on Flux Primitives

Zero new control planes. Installed and upgraded by the Flux Operator.

Enterprise Layer — **AI Pack · NetSec Pack · Assurance Pack**

Management Layer — Flux Operator & MCP · Hardened Distro Mirror · Unified Web UI

Kubernetes Core — Flux Engine · Source Controller · Kustomize · Helm

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ENTERPRISE PACK 01

AI Pack: Governed Agentic GitOps

Autonomous agent operations governed by enterprise IdP and RBAC.

MCP: Identity-Mapped Access

SSO Authentication: Groups map directly to Kubernetes RBAC.

Session Scopes: Granular tool selection per prompt.

Zero Standing Keys: Ephemeral tokens without static secrets.

Fleet Hub-and-Spoke

Mutual TLS: SPIFFE-secured cross-cluster agent queries.

Root Cause: Multi-cluster diagnosis in minutes.

Dual Licensing: Flux Enterprise or standalone.

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ENTERPRISE PACK 02

NetSec Pack: Continuous Network Proof & PQC Scanning

Prove your Kubernetes network policy on every reconciliation cycle.

Triggered Path Sweeps

NetAssert sweeps verify traffic paths on release.

`Restricted PSS` `Zero NET_RAW`

CNCF OpenReports Evidence

Continuous segmentation audit proof for DORA.

`DORA Article 10` `NIS2 Compliant`

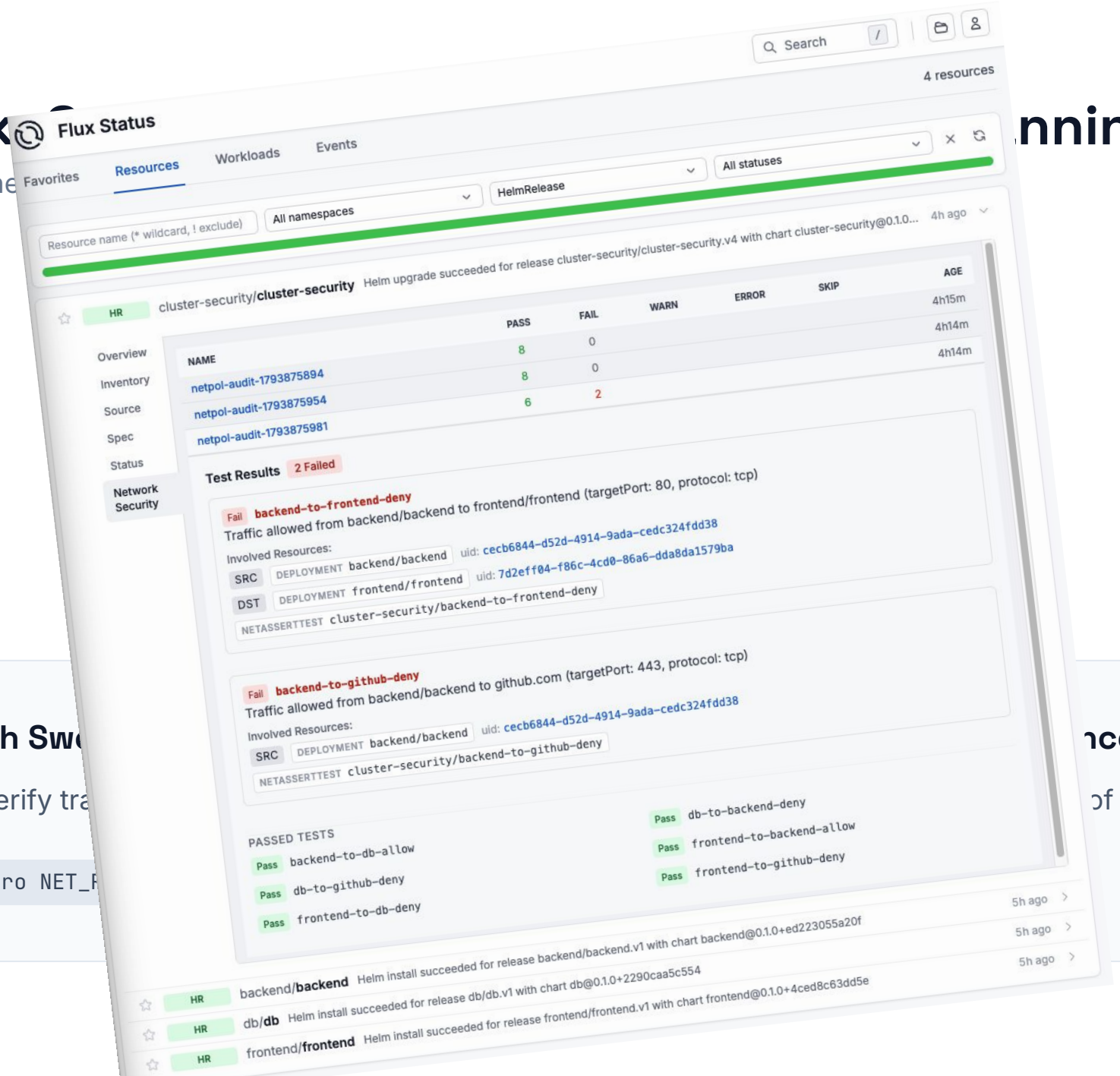
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NetSec Pack 2

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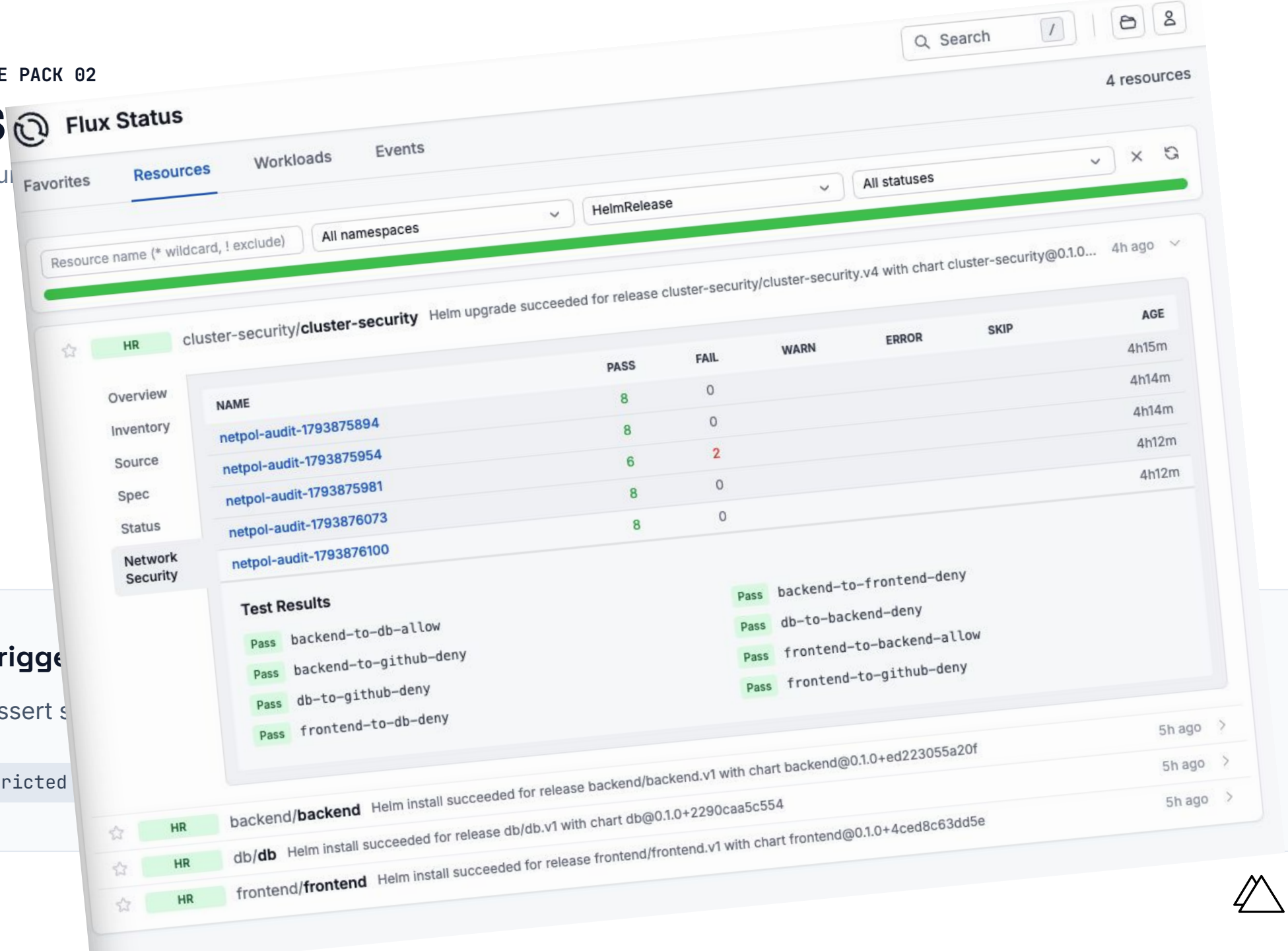
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ENTERPRISE PACK 02

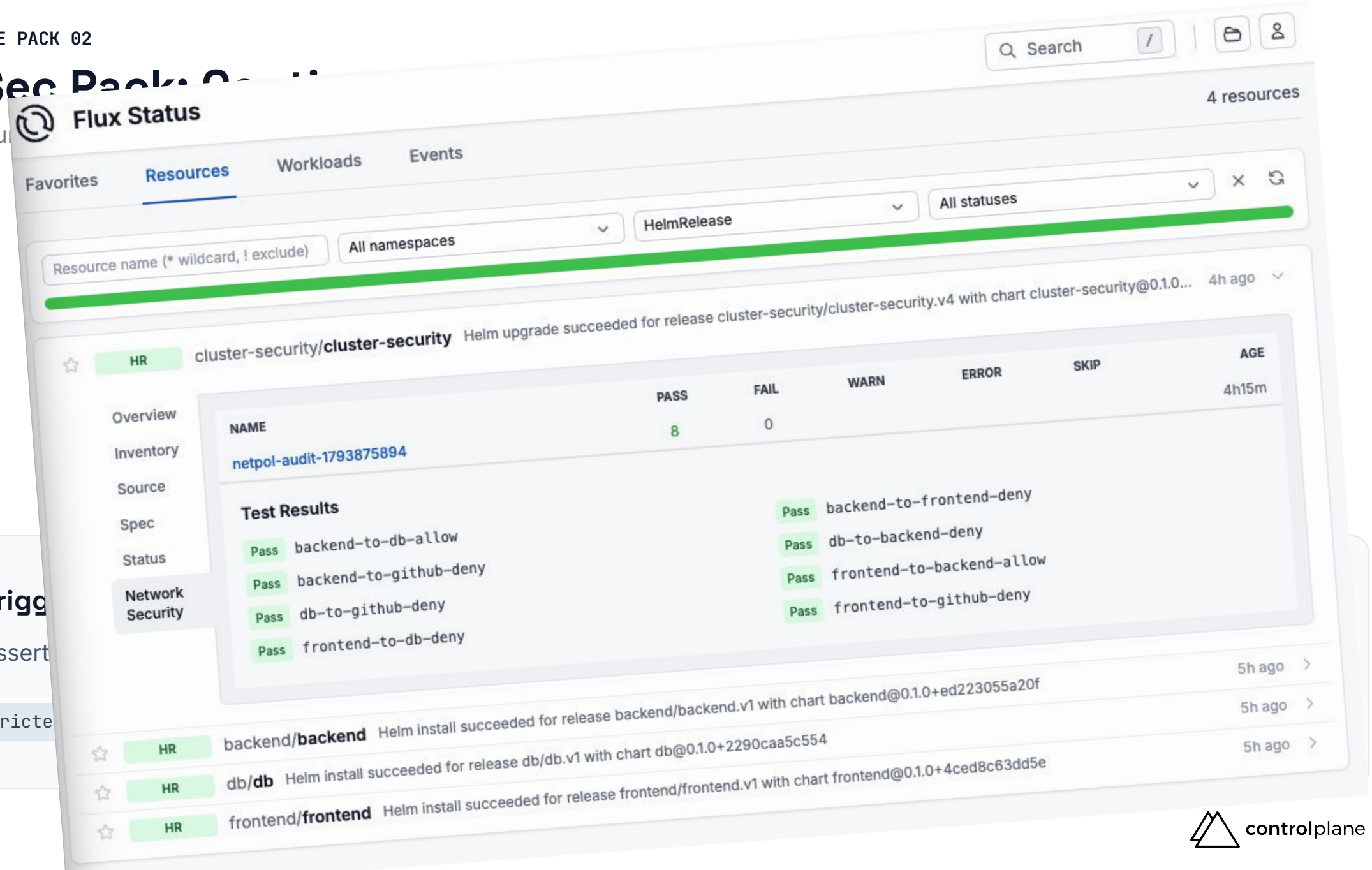
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ENTERPRISE PACK 03

Assurance Pack: Turnkey Auditor Proof

Empirical evidence packages that collapse internal security and third-party risk reviews.

Hardening Guide

Regulated baseline configs for Flux Operator, for security and dev..

`Enterprise standard`

Pentest Reports

AI-augmented verification plus external testing.

`Continuous red-teaming`

Auditor-Facing Evidence

Immediate procurement clearance for security teams.

`Standalone availability`

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TECHNOLOGY PREVIEW

One More Thing...

We shipped SPIFFE for Flux...

SPIFFE Workload API

The SPIFFE Workload API provides the Flux controllers with their X509-SVID, which is used directly for inter-controller mTLS and to authenticate to the SPIFFE Broker API when using the `spiffe` credential provider for object identity.

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TECHNOLOGY PREVIEW

One More Thing: SPIFFEx for OpenBao

Cryptographic workload identity issued directly from OpenBao.

Unified Identity Engine

Direct SVID Issuance: Cryptographic X.509 certs for workloads.

Cross-Plugin Engine: Unified secrets and identity lifecycle.

Zero Extra Plane: No separate SPIFFE infrastructure needed.



OpenBao SPIFFEx

Cryptographic identity for AI agent tool calls.

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TEAM SCHEDULE

Catch ControlPlane All Week

Deeper dives into AI, GitOps, CTF hacking, and platform security across KubeCon.

MONDAY — Today

11:15 · Leigh Capili
Agentic GitOps & Sandboxes
FluxCon NA

11:15 · Fabian Kammel
Post-Quantum Auth in K8s
Open Source SecurityCon

14:40 · Vicente Herrera & Torin van den Bulk
Time-Travel AI Agent Ethics
Cloud Native AI Day

ControlPlane Booth Live Demos
Flux Enterprise Packs all day

TUESDAY — KubeCon

11:30–13:30 · Vicente & Torin
Intro to Capture The Flag (CTF)
Hands-on K8s Security Lab

11:30 · Fabian Kammel
Mythos vs Maintainers

14:50 · Leigh Capili
Argo and Flux Are Friends!

16:40 · Stefan Prodan
GitOps Without Writing YAML

WEDNESDAY — KubeCon

11:30–13:30 · Fabian & Vicente
Capture The Flag Experience
Live Competitive CTF Event

11:50 · Andrew Martin, Liz Rice et al
Welcome to Vulnpocalypse!
KubeCon Panel

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