NXCore Documentation Audit — Internal Review

Date: October 15, 2025

Owner: AeroVista • NXCore Program

Status: ✓ Comprehensive Audit Complete

1) Executive Summary

The NXCore documentation is comprehensive and current. Recent updates (Oct 15, 2025) resolved all critical issues and prepared **Phase B** (browser workspaces) for deployment. A minor SSL certificate scope limitation is identified with a clear remediation path. Recommendation: **Proceed with Phase B immediately** and address wildcard/ACME certificates in parallel.

Key Highlights - 15 services deployed and operational (Foundation, Monitoring, Storage, Management) - 15 All critical issues resolved on Oct 15, 2025 - 15 Phase B ready: 6 browser workspace services with compose files + scripts - 15 SSL certificate currently covers root domain only; subdomains unresolved

Go/No-Go: GO for Phase B (with concurrent SSL fix).

2) Quick Facts (At-a-Glance)

Area	Current State
Deployed Services	15 / 41 (37%)
Latest Fixes	Traefik health check; Portainer access; Phase B files
Phases	Phase A C complete; Phase B ▶ ready
Docs Coverage	100% of deployed services; complete change tracking
Security	Tailscale VPN, Authelia SSO/MFA, network isolation

3) Priority Items (RAG)

- High (Today Oct 15, 2025)
- Critical Issues Resolution DONE

File: CRITICAL_ISSUES_RESOLUTION_2025-10-15.md

Impact: Stabilized stack; Phase B unblocked.

Resolutions: Traefik health check; Portainer curl + port 9444; Phase B compose files; deployment scripts.

Files Updated Summary — DONE

File: FILES_UPDATED_2025-10-15.md

Impact: Full change ledger for auditability.

· Landing Page Update — DONE

File: LANDING PAGE UPDATE 2025-10-15.md

Impact: Accurate UI reflecting live services; tabbed interface.

- Medium (Oct 14, 2025)
- AeroVista Status Overview

File: AEROVISTA_STATUS_OVERVIEW.md — 15/41 deployed; Phase B ready.

Phase B Browser Workspaces Plan

File: PHASE_B_BROWSER_WORKSPACES_PLAN.md — VNC, NoVNC, Guacamole, Code Server, Jupyter, RStudio; 5–7h.

Phase B Executive Summary

File: PHASE B EXECUTIVE SUMMARY.md — Objectives/ROI; approval ready.

- Lower (Historical/Reference)
- Deployment Checklist DEPLOYMENT_CHECKLIST.md
- Complete Stack Documentation AEROVISTA_COMPLETE_STACK.md (41 planned; network & ports).

4) Current Infrastructure Snapshot

Deployed (15/41) - **Foundation (5):** Traefik, PostgreSQL, Redis, Authelia, Docker Socket Proxy - **Monitoring & Observability (5):** Grafana, Prometheus, Uptime Kuma, cAdvisor, Dozzle - **File Sharing & Storage (3):** File Sharing Nginx, File Sharing PHP, NXCore Dashboard - **Management & Interface (2):** Landing Page, Portainer (now :9444)

Ready — Phase B (6): VNC Server, NoVNC, Guacamole, Code Server, Jupyter, RStudio

5) Issues & Resolutions

A) Resolved (Oct 15, 2025)

- 1) Traefik Health Check
- Root Cause: Health check on port 8080 (non-existent)
- Fix: Disabled bad check; validated Traefik routes
- Status: 🗸 Resolved

2) Portainer Access

- Root Cause: wget health check; IP allowlist; port conflicts
- Fix: Switched to curl; removed IP restriction; moved to : 9444
- Status: Resolved (accessible at : 9444)

3) Missing Phase B Service Files

- Root Cause: Absent compose files + scripts
- Fix: Added 6 compose files; updated deployment scripts
- Status: 🗸 Resolved

B) Identified

1) SSL Certificate Scope Limitation

- Issue: Cert covers nxcore.tail79107c.ts.net only; subdomains (e.g., grafana.*) fail
- Impact: HTTPS/ACME failures + NXDOMAIN on subdomains
- Recommendation: Wildcard cert (*.nxcore.tail79107c.ts.net) or Traefik ACME DNS challenge; verify Tailscale DNS.

2) Landing Page Links (Legacy)

- Issue: Some links pointed to broken subdomains
- Fix: Updated to working IPs
- Status: Resolved in latest push

6) Maturity Assessment

Strengths - Documentation depth & structure; full change tracking - Stable core; observability online; security foundations (VPN/SSO) - Scripted deployments with health checks; rollback guidance - Clear phase plan ($A \rightarrow B \rightarrow C \rightarrow D...$) with realistic durations

Improvements - SSL/Wildcard/ACME automation (High) - Universal Traefik routing for consistency (Medium) - Authelia user lifecycle & onboarding SOP (Medium)

7) Recommendations & Plan

Immediate (1-2 weeks) 1. Deploy Phase B (5-7h) — proceed now; validate access via Traefik.

- 2. **Resolve SSL** (2–3h) wildcard or ACME DNS + Tailscale DNS updates.
- 3. **Unify Routing** (4–6h) migrate remaining services to Traefik middlewares/routers.

Medium-Term (1-2 months) - Phase C (AI): Ollama, Open WebUI, Whisper, Stable Diffusion (3-4h)

- Phase D (Data/Storage): MinIO, Nextcloud, PGAdmin, Redis Commander (4–5h)
- User Onboarding: Access model, training, support flows (1–2 weeks)

Long-Term (3-6 months) - Complete 41 services; collaboration & advanced AI

- Multi-Node/HA: Load balancing, scaling, >99.5% uptime

8) KPIs

Current - Uptime: 100% (deployed services)

- Docs Coverage: 100% (deployed)

- Critical Issues: 0 open

- Automation: 100% via scripts/compose

- Security: VPN + SSO + isolation

Targets (Next 3 months) - Phase B live (6 services), active usage

- Phase C live (4 AI services), <3s responses
- 25/41 services (≥61%); >99.5% uptime
- Positive user satisfaction on browser workspaces

9) Appendix

A) Document Index (by priority)

• High (Oct 15, 2025)

CRITICAL_ISSUES_RESOLUTION_2025-10-15.md
FILES_UPDATED_2025-10-15.md
LANDING_PAGE_UPDATE_2025-10-15.md

Medium (Oct 14, 2025)

AEROVISTA_STATUS_OVERVIEW.md

PHASE_B_BROWSER_WORKSPACES_PLAN.md

PHASE B EXECUTIVE SUMMARY.md

• Reference

DEPLOYMENT_CHECKLIST.md
AEROVISTA_COMPLETE_STACK.md

B) Service Inventory (Deployed)

- Foundation: Traefik, PostgreSQL, Redis, Authelia, Docker Socket Proxy
- Monitoring: Grafana, Prometheus, Uptime Kuma, cAdvisor, Dozzle
- Storage/UI: File Sharing Nginx, File Sharing PHP, NXCore Dashboard
- Management: Landing Page, Portainer (:9444)

C) Approval & Sign-Off

•	Reviewer(s):
•	Security:
•	Infra Lead:

• Decision: □ Approve □ Block □ Revisions Required
• Notes:

Conclusion: Infrastructure and documentation are audit-ready. **Proceed with Phase B** while implementing SSL wildcard/ACME to standardize secure access across subdomains.